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Monetary policy transmission by securitising banks



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Challenges for Monetary Policy Transmission in a Changing World Network (ChaMP)

This paper contains research conducted within the network “Challenges for Monetary Policy Transmission in a Changing World Network” (ChaMP). It consists of economists from the European Central Bank (ECB) and the national central banks (NCBs) of the European System of Central Banks (ESCB).

ChaMP is coordinated by a team chaired by Philipp Hartmann (ECB), and consisting of Diana Bonfim (Banco de Portugal), Margherita Bottero (Banca d’Italia), Emmanuel Dhyne (Nationale Bank van België/Banque Nationale de Belgique) and Maria T. Valderrama (Oesterreichische Nationalbank), who are supported by Melina Papoutsi and Gonzalo Paz-Pardo (both ECB), 7 central bank advisers and 8 academic consultants.

ChaMP seeks to revisit our knowledge of monetary transmission channels in the euro area in the context of unprecedented shocks, multiple ongoing structural changes and the extension of the monetary policy toolkit over the last decade and a half as well as the recent steep inflation wave and its reversal. More information is provided on its website.

Abstract

This paper studies whether securitisation affects monetary policy transmission via banks. Using granular loan-level data from the euro area, we show that banks actively engaged in securitisation adjust credit supply more strongly in response to monetary policy shocks than a matched sample of non-securitising banks. This is because securitisation expands banks' lending capacity, but by increasing reliance on investors whose required returns and risk appetite are more sensitive to monetary policy conditions. Following a monetary tightening, these investors demand higher compensation and reduce their exposure to securitised assets, leading securitising banks to contract lending more than other banks. Effects are stronger for loans more likely to be securitised — i.e., to safer borrowers with longer maturities — and are primarily driven by synthetic securitisations, which provide additional capital relief through Significant Risk Transfers. Firms exposed to securitising banks cannot fully substitute tighter loan supply through existing or new bank relationships.

Keywords: securitisation, bank lending channel, monetary policy transmission.
JEL: G21, G23.

Non-technical summary

Securitisation has grown rapidly among euro area banks in recent years, driven in particular by synthetic securitisations and Significant Risk Transfers (SRTs). By offloading credit risk to capital markets, securitisation allows banks to free up regulatory capital and expand lending beyond what their own balance sheets would otherwise permit. A natural and important question for monetary policy is therefore: does the growing use of securitisation change how central bank interest rate decisions feed through to the real economy?

The traditional view holds that securitisation should dampen the bank lending channel of monetary policy: by diversifying their funding sources and strengthening their capital buffers, securitising banks become less vulnerable to interest rate shocks. This paper challenges that view. Securitisation expands a bank's lending capacity, by increasing the bank's reliance on non-bank financial institutions. These investors are considerably more sensitive to monetary policy conditions than traditional depositors: when interest rates rise, they demand higher returns and reduce their risk appetite, making them less willing to absorb tranches of securitised portfolios. As a result, monetary tightening can curtail a bank's ability to originate and securitise new loans, amplifying rather than dampening the contraction in credit supply.

We test this hypothesis using granular loan-level data from the AnaCredit euro area credit register, which covers individual loans between banks and non-financial firms across the euro area. To isolate credit supply from credit demand, we include firm-quarter fixed effects, following the standard approach of Khwaja and Mian (2008): by comparing how loans to the same firm at the same point in time differ depending on whether the lending bank securitises or not, we can attribute any differential lending response to the bank's funding model rather than to shifts in firm-level demand. To ensure that the comparison is not altered by confounders, we match securitising banks to a control group of non-securitising banks that are similar in terms of size, capital ratios, liquidity, profitability, and sectoral specialisation.

We find that banks actively engaged in securitisation contract credit supply more sharply than matched non-securitising banks in response to a monetary policy tightening. A one percentage point increase in the policy rate leads to lending flows which are 6 to 10% lower for a securitising bank on average over the subsequent year. The effect is robust to a wide range of empirical specifications. We argue that this is because securitisation allows banks to increase lending, by increasing reliance on capital market investors, whose demand is highly sensitive to monetary conditions.

Using a difference-in-difference approach around banks' first issuance of securitised loans, we provide evidence that securitisation indeed expands banks' lending capacity. We attribute this to the regulatory capital relief that securitisation provides. We further show that bank CET1 ratios increase with securitisation, and that the amplification of the bank lending channel is driven predominantly by synthetic securitisations,

which are associated with larger capital relief since they are almost systematically associated to SRTs.

We then show that the share of securitised loans in total loans declines as the policy rate rises. We argue that this contraction in securitisation activity is driven by a decline in investor demand. First, securitised products are placed with capital-market investors who are more sensitive to interest rate changes than bank depositors. Second, securitised products are riskier than other bank-issued capital-market instruments such as covered bonds. As monetary policy tightening leads to a drop in risk appetite, investors typically rebalance their portfolios away from securitised products. This may be further amplified by the contraction of non-bank financial institution (NBFI) balance sheets, which are among the primary buyers of securitised products. Consistently, the additional lending sensitivity of securitising banks is concentrated in the loans most likely to be securitised — those extended to safer borrowers and with longer maturities — which become harder to place with outside investors when monetary conditions tighten.

We also find that firms with greater exposure to securitising banks reduce their total borrowing more in response to monetary tightening than firms borrowing primarily from non-securitising banks. This confirms that the amplified credit supply contraction has measurable real consequences.

These findings carry important implications for monetary policy. As securitisation continues to expand across the euro area, the bank lending channel may become more powerful and interest rate changes may transmit more forcefully to credit conditions. At the same time, the growing sensitivity of bank lending to investor risk appetite introduces a new layer of financial-market amplification into the monetary transmission mechanism. Central banks and prudential authorities should take into account how the structure of bank funding, and in particular the degree of reliance on capital market investors through securitisation, shapes the potency and speed of monetary policy transmission.

1 Introduction

How developments in financial markets reshape the transmission of monetary policy is a central question for researchers and policymakers alike. This paper examines one such development: the resurgence of securitisation following a prolonged period of post-crisis dormancy. Securitised loan volumes reached approximately EUR 1.5 trillion in the euro area by end-2025—an increase of roughly 50% since the pandemic. This resurgence is large enough to warrant renewed scrutiny of its implications for monetary policy transmission.

A long-standing view holds that securitisation dampens banks' responsiveness to monetary policy by making their balance sheets more liquid and relaxing capital constraints (Altunbas, Gambacorta, and Marques-Ibanez, 2009). According to this view, securitisation attenuates the bank lending channel, rendering credit supply less sensitive to policy conditions.

We argue that this view is incomplete, as it does not treat securitisation as an outcome that itself responds to monetary policy. When policy tightens, the returns required by outside investors rise faster than the rates banks charge borrowers, sharply reducing the attractiveness of securitisation to banks. Securitisation activity contracts as a result—and loan origination alongside.

In this paper, we revisit the question of how the bank lending channel is affected by securitisation by testing whether the credit supply of banks that actively securitise responds differently to monetary policy surprises than that of other banks. We propose a new mechanism through which securitisation heightens, rather than dampens, banks' sensitivity to monetary policy, and we corroborate our findings using granular loan-level data. This allows us to control for confounders that aggregate bank-level data, on which the earlier literature relies, cannot rule out.

Two conditions are necessary for securitising banks to become more sensitive to monetary policy. First, securitisation must allow banks to expand lending beyond what other funding sources permit; otherwise, it merely broadens banks' set of funding instruments without altering their policy sensitivity. Second, investor demand for securitised loans must contract faster than banks' other funding sources when policy tightens.

There are two main identification challenges to test these predictions. First, banks with an active securitisation business may be exposed to a structurally different set of borrowers which themselves react differently to monetary policy. To alleviate such concerns, we resort to the classic approach in the micro-banking literature and include firm-time fixed effects to focus our identification on the differential lending to the same firm by different banks (Khwaja and Mian, 2008). Second, banks' choice to engage in securitisation may be endogenous. For example, banks with more flighty deposits may derive greater liquidity benefits from being able to securitise their longer-dated loans in times of stress. We address this issue by adopting a propensity score matching approach to select a set of control banks that closely match the characteristics of the banks

that have a securitising business. Importantly, among the matching variables, on top of key bank balance sheet characteristics (total assets, CET1 ratio, liquidity coverage ratio, ROE, deposit to asset ratio, NPL ratio, securities to asset ratio), we also include the share of loan exposures to different sectors, to capture bank specialization, which is an important determinant of firms' preference for banks (Paravisini, Rappoport, and Schnabl (2023)), and may lead to a failure of the identification assumptions of the Khwaja and Mian (2008) approach.

We document a more pronounced transmission of monetary policy to lending for banks actively securitising loans. The effects are strongest in the quarter immediately following the shock, and gradually fade. We subject our findings to several robustness checks on the matching procedure, the definition of monetary policy shocks, and the definition of loan growth - where results also hold both for newly issued loans, and for the growth rate in loan stocks. Results are also robust to a variety of specifications with different sets of controls and fixed effects.

We then set out to explore the mechanism. First, we provide new evidence to confirm that securitisation is associated with an increase in bank lending - a result which is consistent with recent findings by Osberghaus and Schepens (2025), and older findings by Altunbas et al. (2009). Using the staggered diff-in-diff estimator proposed by Callaway and Sant'Anna (2021), we show that securitisations and more so, Significant Risk Transfers (SRTs), which allow banks to obtain capital relief, are positively associated with bank lending. The same approach allows us to show that securitisations correlate with increases in bank CET1 ratios and payouts, but not liquidity ratios, suggesting that capital relief may be the main driver of additional lending. Consistently, we find that synthetic securitisations, which are systematically associated with the larger benefits of SRTs, drive the higher lending sensitivity of securitising banks.

Then, we show that securitisations themselves contract as a share of total loans when monetary policy tightens. We argue that this is driven by demand, because capital market investors rely on wholesale, market funding, which closely tracks movements in the risk-free curve. As market funding becomes costlier, these investors require higher returns to hold assets, including securitisations. Instead, deposit rates adjust sluggishly, in part due to limited competition (Drechsler, Savov, and Schnabl, 2017), but also reflecting the slow adjustment of demand (by depositors) in this market. On top, securitised loans are risky instruments, and demand for such instruments also declines relative to other securities when monetary policy tightens via a risk-taking channel. Consistently, we find that holdings of securitised loans by non-banks decrease following monetary policy shocks, and relatively more than holdings of relatively safer covered bonds. To emphasize that the higher sensitivity of securitising banks to monetary policy is driven by the contraction of securitisation itself, we finally show that this increased sensitivity is enhanced for loans more likely to be securitised i.e., with longer maturities, and limited riskiness.

Finally, we show that firms borrowing more from securitising banks are more sensitive to monetary policy shocks, and are not able to fully substitute the lost credit supply by entering into new lending relationships with less affected banks. The effects are dampened for firms that also have lending relationships with non-securitising banks.

Our paper contributes to several strands of the literature.

Most studies on securitisation have focused on assessing the implications of information asymmetries in the securitisation market, given the role that securitisations played in the run-up to the Global Financial Crisis. Benmelech, Dlugosz, and Ivashina (2012) argue that there is limited adverse selection for the securitisation of corporate loans and that the ex-post performance of corporate loans securitised in the first half of the 2000s was no worse during the financial crisis. Instead, Albertazzi, Bottero, Gambacorta, and Ongena (2025) identify signs of both moral hazard and adverse selection, while Acharya, Schnabl, and Suarez (2013) emphasize that banks benefited from capital relief without shedding the corresponding risk in the run-up to the crisis. More recently, Osberghaus and Schepens (2025) showed that banks securitise loans for which the risk-adjusted risk-weight gain is most important, and that securitisation leads to reduced loan monitoring, as measured by the frequency of PD revisions.

Our work contributes to the scarcer literature on the role of securitisation for monetary policy transmission, which so far focused on the developments surrounding the GFC. Estrella (2002) and Altunbas et al. (2009) argue that securitisation dampens the bank lending channel, by allowing banks to strengthen their balance sheets. Instead, Maddaloni and Peydró (2011) claim that securitisation amplifies monetary policy easing, by enhancing bank lending capacity in periods when capacity constraints are binding like periods of high loan growth. Aysun and Hepp (2011) have the same finding, but argue that this is because securitising banks hold greater amounts of mark-to-market assets and are therefore subject to more amplification via the balance sheet channel. We take a new look at this unresolved question by examining the latest monetary policy cycle and, importantly, by improving on identification thanks to granular loan level data.

More broadly, we contribute to the vast empirical literature on the bank lending channel that started with Kashyap and Stein (2000). The traditional view is that small and less liquid banks are more sensitive to monetary policy, because of their inability to compensate for deposit outflows when monetary policy tightens. The literature then emphasized the role played by competition for deposits in transmission (Drechsler et al., 2017).[1] However, it remains unclear what liability composition implies for transmission. On the one hand, banks with a greater share of deposit financing may be subject to greater deposit outflows when monetary

[1] The conclusions of this literature on transmission to lending remain still ambiguous. While some argue that lower competition implies less transmission to deposit rates, more deposit outflows and a stronger contraction of credit because banks seek to protect their deposit franchise (Drechsler et al., 2017; Gutiérrez, Martorell, and Melnychuk, 2026), others argue that when funding markets become more competitive because depositors are wealthier or because they have more outside options, deposit outflows become larger and loan reduction more abrupt, despite higher transmission to deposit rates (Basten, Cucic, and Schepens, 2026).

policy tightens, and have to tighten loan supply more. On the other hand, the more stable funding base of banks with higher deposit financing implies they can afford greater deposit outflows: as a result, they increase deposit rates less, and cut lending by less (Bussiere, Gasparini, Horny, and Nguyen, 2025). Our paper could complement the latter story: securitising banks, with smaller shares of deposit funding, need to cut lending more following a hike to mitigate the loss of access to profitable market financing.

This debate also speaks to the nascent literature on transmission through non-banks - which represent the overwhelming share of investors in securitised loans (Gonzalez and Triandafil, 2023). While Elliott, Meisenzahl, and Peydró (2024), Nelson, Pinter, and Theodoridis (2018) and Cucic and Gorea (2026) show that non-banks buffer the contraction of bank lending during tight money episodes, Chen (2026), Goncharenko and Lukmanova (2026) and IMF (2016) argue the opposite. According to the latter group, which we adhere to, non-bank financing costs react faster than those of banks, because they are not buffered by deposit funding. This leads to a faster repricing of bond rates (supplied by non-banks) relative to lending rates (supplied by banks), and a stronger contraction of borrowing from non-banks than from banks.

Finally, our paper also speaks to the literature looking at the complementary role of banks and non-banks upon financial stress. In particular, di Patti and Sette (2016) document that the securitisation market freeze during the GFC led to more credit supply tightening by those banks that were securitising greater shares of their loan portfolios beforehand, while Nicoletti, Rariga, and d'Acri (2024) similarly showed that banks relying more on investment funds for their short-term funding had to curtail lending more following the abrupt liquidity crisis triggered by the pandemic.

The rest of the paper is organised as follows: Section 2 describes the institutional framework characterising the securitisation market; Section 3 discusses the channels through which the possibility to securitise loans may affect the bank lending channel i.e., the way in which monetary policy shocks are transmitted to bank loan supply; Section 4 presents the empirical strategy; Section 5 describes the data; Section 6 presents the results, including robustness checks and details on the validation of the mechanism; Section 7 concludes.

2 Institutional setting in the European Union

Securitisation can be achieved by either transferring a pool of loans to a Financial Vehicle Corporation (FVC), and issuing securities backed by those loans ("traditional" securitisation), or by keeping the loan pool on balance sheet and buying insurance on specific risk tranches of that pool from third parties ("synthetic" securitisation).

Traditional securitisations provide stronger liquidity benefits than synthetic ones. In a traditional securitisation, banks directly get cash upon selling the securitised loans. In contrast, synthetic transactions are

either unfunded (typically when the protection seller is of high credit quality[2]), or just require collateral up to the maximum potential loss for funded transactions (typically when the protection seller is of lower quality), knowing that there can be limitations to the re-use of this collateral.

Traditional securitisations also allow banks to generate collateral for refinancing operations,[3] a motive which may have become less prominent in recent years as banks still hold high levels of excess liquidity in the euro area. In contrast, synthetic securitisation generally does not involve the issuance of actual securities.[4]

Securitisation may also provide capital relief. To obtain it, banks have to apply for the securitisation to be labelled as a Significant Risk Transfer (SRT).[5] SRTs gained momentum after the EBA clarified the criteria for achieving effective risk transfer in 2017 (EBA, 2017). The EU then implemented its Securitisation Regulation in 2019,[6] creating a specific framework for simple, transparent and standardised (STS) securitisations,[7] and further extended the STS framework to synthetic transactions in 2021.[8]

Securitisation has increased substantially since the pandemic, driven by the rise of synthetic securitisations (Figure 1), which are simpler to set-up and have more beneficial capital treatment for certain asset classes.[9]

On the demand-side, the main buyers of tranches or providers of insurance in the case of synthetic securitisations are non-bank financial institutions (NBFIs). According to a survey conducted by the ECB among key originating banks in 2023 (Gonzalez and Triandafil, 2023), 45% of investors (providers of insurance against credit risk) were specialised credit funds, 30% asset managers, 15% supranational investors (e.g., the European Investment Bank) and 10% insurance companies and pension funds.

3 Conceptual framework

The effects of securitisation on monetary policy transmission through banks are a priori ambiguous.

[2] "[unfunded guarantees are] eligible for the STS criteria only when provided by an investor recognised under the CRR as carrying 0% risk weight" (ESRB, 2025).

[3] See Supervision Newsletter 15 May 2024: EU securitisations: 2023 in figures.

[4] Synthetic securitisations may be achieved by issuing credit-linked notes which are securities. However, this represents 15-20% of issuance (Osberghaus and Schepens, 2025).

[5] After transactions qualify as SRTs, banks are permitted to reserve capital only against the retained and appropriately risk-weighted tranches. Supervisors need to approve individual SRT transactions, by verifying (1) that banks shed off a material fraction of the underlying pool of exposures (over 50% of RWAs in the mezzanine tranche in the case of three-tranche structures, or over 80% of the nominal amount of the first loss position for a two-tranche structure); and (2) that the capital relief achieved is not more than the losses transferred (Gonzalez and Triandafil, 2023)

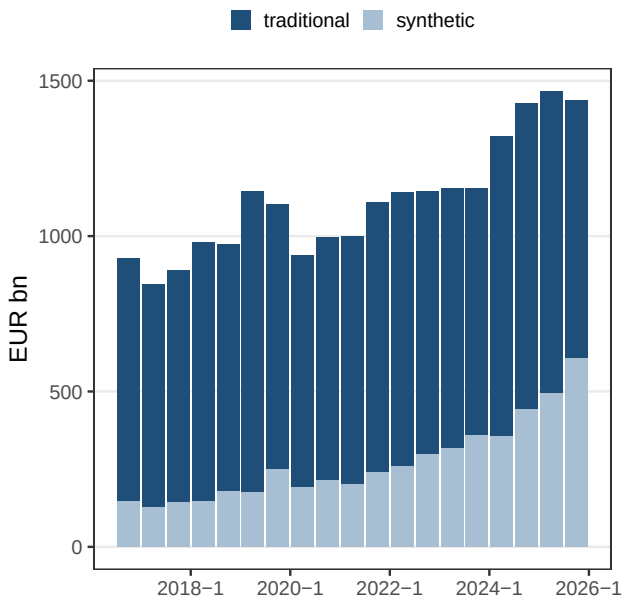
[6] Regulation (EU) No 2017/2402 of the European Parliament and of the Council of 12 December 2017.

[7] "The regime allows banks to structure transactions to obtain cheaper funding and lower capital requirements if certain conditions on simplicity, transparency and standardisation are met" (Gonzalez and Triandafil, 2023).

[8] Regulation (EU) No 2021/557 of the European Parliament and of the Council of 31 March 2021.

[9] Gonzalez and Triandafil (2023) highlight that synthetic securitisations assets may not have an external rating, and that this may lead to higher capital savings than in the case of traditional securitisations, for example when portfolios 1) are very concentrated, 2) include several loans to SMEs, as these are very heterogeneous. Synthetic securitisations may be preferred also because of 1) confidentiality restrictions that prevent the banks to disclose information on the underlying loans and 2) investor preference, depending on whether investors look only for exposure to the credit risk, or also seek exposure to the operational and funding exposures associated with traditional deals.

Figure 1: Total stock of loans securitised



Source: Aggregate stock of securitised loans originated by euro area banks at the consolidated level. ECB Supervisory Reporting. Latest observation: Q4 2025.

On the one hand, securitisation allows banks to strengthen their balance sheets. They obtain capital relief when they achieve SRTs, by lowering risk-weights on retained tranches which are safer, and exchanging riskier tranches for cash (in the case of traditional securitisations) or setting risk-weights on insured tranches to zero (in the case of synthetic transactions). Traditional securitisation also allows banks to manufacture pledgeable assets (if they retain some securitised loan tranches), and opens up the possibility of securitising more loans in case of shocks, making banks de facto more liquid. This would make banks less sensitive to monetary policy shocks (Altunbas et al., 2009).

At the same time, securitisation expands bank lending capacity, as also shown by Altunbas et al. (2009), and more recently by Osberghaus and Schepens (2025). Securitisation allows banks to tap into a new source of funding, and to free up lending capacity created by reducing risk weighted assets. This source of funding, in turn, may vanish more rapidly than other sources in the event of monetary policy tightening or of other negative financial shocks (di Patti and Sette, 2016). Banks may also become more capital constrained in case the source of capital relief underpinning their lending policy dries out - for example, if planned SRTs become unfeasible under tighter monetary policy conditions.

This points to two *necessary* conditions for securitisation to make lending origination more sensitive to monetary policy. First, controlling for loan demand, banks must effectively increase lending origination when they start securitising. Otherwise, securitisation would simply allow banks to optimise on the funding mix

and/or save on regulatory capital. Second, the demand by investors for securitised loans should itself be more sensitive to monetary policy than demand for other bank liabilities like deposits. As we will argue, demand by investors for securitised loans responds very quickly to monetary policy tightening, as these investors arbitrage between securitised loans and other debt securities that reprice in real time with monetary policy. Moreover Adrian and Shin (2010) show that the balance sheet of NBFIs is very reactive to policy rates, expanding after easing and contracting after tightenings, as these intermediaries rely mainly on short-term market funding, which reprices quickly as policy rate change. In the Appendix, we propose a simple formalisation of how those two conditions are necessary for securitising banks to be more sensitive to monetary policy.

At the aggregate level, Figure 2 suggests that the annual growth rate of securitised loans displayed larger swings than that of non-securitised loans over the recent monetary policy tightening and easing cycle. This is equivalent to access to securitisation having been more volatile than other sources of funding or capital relief over this period.

Figure 2: Annual growth rate of securitised and non-securitised loans to firms



Notes: Annual growth rates among balanced sample of banking groups. Non-securitised loans (retained loans) are loans to firms excluding synthetically securitised loans. Source: ECB Supervisory Reporting. Latest observation: Q4 2025.

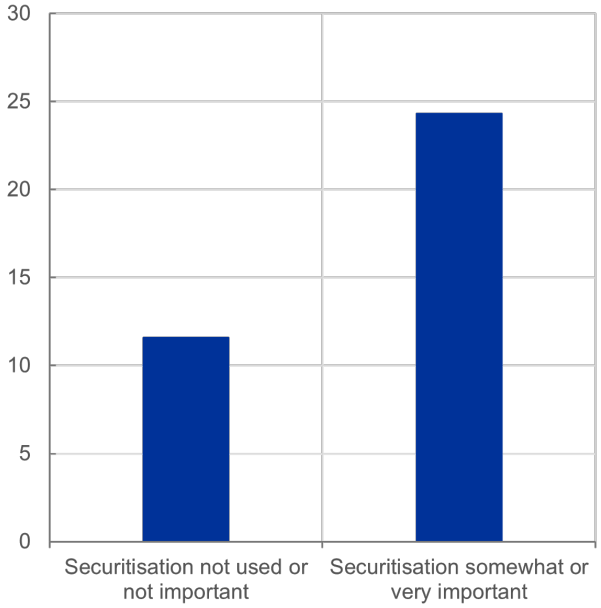
Anecdotal evidence from the latest Bank Lending Survey, run in April 2026, suggests that securitising banks indeed transmit monetary policy more.[10] Figure 3 shows that banks that use more intensely securi-

[10]While this is outside our AnaCredit sample period, it is the first wave of the survey containing detailed information about

tisation tightened credit standards in response to the increase in market rates triggered by the war in Iran and the associated expectations of higher inflation and monetary policy tightening.

In what follows we provide regression-based evidence consistent with this aggregate pattern.

Figure 3: Cumulated net tightening of credit standards by use of securitisations



Source: ECB (iBLS). Notes: Cumulated net tightening of credit standards reported in Q1 and expected for Q2 2026. The category "Securitisation somewhat or very important" includes banks reporting that securitisation is at least somewhat important in at least one of the modes (traditional SRT, traditional non-SRT, synthetic SRT, synthetic non-SRT). Other banks are included in the category "securitisation not used or not important". The latest observations are for Q1 2026.

4 Empirical approach

To test whether securitising banks transmit monetary policy shocks to credit supply differently than other banks i.e., whether securitisation activity affects the bank lending channel of monetary policy transmission, we face two key identification challenges. The first is that securitisation activity is an endogenous decision of banks, which may be driven by factors that also drive credit supply. The second is that the borrowers of banks engaging in securitisation may be different from those of other banks and have, for example, a demand for credit that responds differentially to monetary policy.

We address the first issue by building a sample of securitising and non-securitising banks that are balanced on observable characteristics through propensity score matching. We address the second by leveraging our

the relevance of securitisation for banks.

loan level data and including granular fixed effects. The next subsections provide details on how we implement these strategies.

4.1 Matching procedure

To identify a differential effect of monetary policy depending on whether banks engage or not in securitisation, we would need that the choice to engage in securitisation is as good as randomly assigned across banks. Since this is unlikely to be the case, we construct a control group of banks by matching each treated bank to a bank which never securitised in the 2 years before our loan-level sample period begins, but which would have had the greatest probability to also have a securitisation activity based on a large set of characteristics. These are meant to capture key drivers of banks' decision to securitise loans: capital and liquidity positions (CET1 ratio, NPL ratio and LCR), profitability (ROE), funding structure (deposit to asset ratio), market activity (securities to asset ratio), size (total asset) and a dummy for "significant institution" meant to control for the specific regulatory and supervisory framework applied to these banks. Our matching procedure also uses sectoral bank lending specialisation.[11] Specifically, we calculate for each bank the share of its loans in manufacturing, services, construction, and other sectors.

A bank is considered as treated if it reported any securitisation prior to Q1 2021 (see Section 5 for the exact method used to identify securitising banks in AnaCredit), to ensure we have a sufficiently large number of treated banks (our credit registry data starts at the end of 2018), while excluding pandemic-driven lending dynamics of 2020 from the regression analysis. De facto, this focuses our analysis on the 2022-25 euro area monetary policy cycle.

To obtain bank characteristics, we match AnaCredit to euro area supervisory data at the individual level. In the few cases where both a securitising bank and a non-securitising one are matched to the same reporting entity, we exclude those non-securitising entities to avoid matching a securitising bank to itself.[12] Sectoral specialisation is measured in AnaCredit.

We take the mean of the characteristics we employ for the propensity score matching over the Q1 2019-Q1 2021 period. In our preferred specification, matching is performed by nearest neighbour without replacement i.e., the same control bank may be used as a match for only one treated bank.

Figure A.1 shows that pre-matching, as expected, securitising and non-securitising banks are very different. The former are bigger, more likely to be significant institutions, with a higher NPL ratio and a larger share of lending in manufacturing. They are also less capitalized banks with a lower share of deposit funding.

[11] Bank specialisation has been shown to be a key driver of firm preferences for specific banks and thus of potential failures of the Khwaja and Mian (2008) approach, see Paravisini et al. (2023) among others.

[12] In practice, only 4 securitising banks identified in AnaCredit belong to a reporting bank which also contains a non-securitising entity, and none to a reporting bank which contains another securitising entity.

After matching, instead, the samples have very similar characteristics. Table A.1 confirms that the matching procedure strongly reduces the differences in the samples.[13]

In a robustness exercise, we show that our results also hold when running the same analysis using a matching procedure with replacement.

4.2 Baseline regression

The second key identification challenge is the possibility that borrowers of securitising banks are systematically different from borrowers of other banks and, in particular, that their demand for credit reacts differently to monetary policy shocks. To address this issue we rely on the approach pioneered by Khwaja and Mian (2008) and made possible by the availability of loan-level datasets: we include borrower-time fixed effects FE_{it} to control for time-varying loan demand. This ensures that we are comparing lending by securitising and non-securitising banks to the same firm.

Thus, our main empirical specification for firm i bank j quarter t horizon h is the following:

$$Log(Loan_{ij,t+h}) = \beta \times 1\{Securitise\}_i \times MP_{t-1} + X_{jt-1} + FE_{it} + FE_{ij} + \epsilon_{ijt}, \quad (1)$$

where $Log(Loan_{ijk,t+h})$ is the log of new loans from bank j to firm i at time t+h, $1\{Securitise\}_i$ is a dummy equal to 1 if bank i securitised loans in the period Q1 2019-Q1 2021, X_{jt} a set of bank-level controls (CET1 ratio, log total assets, ROE, LCR, deposit to total asset ratio, securities holdings to total asset ratio, and NPL ratio), and MP_t is a measure of monetary policy shock at t. FE_{ij} are bank-firm fixed effects that allow to scale loan flows by the average size of each bank-firm relationship.

We choose to study the effect of monetary policy on loan flows instead of loan growth. This allows us to capture effects on all new lending, as long as the firm receives loans in at least two quarters of the period under study (otherwise it would be absorbed by the bank-firm fixed effect). Instead, using loan growth as dependent variable restricts the analysis to the intensive margin, which in practice, means that loan repayment dynamics make up a large fraction of the variation captured by loan growth. A potential drawback of using loan flows as dependent variable is that we need both a securitising and a non-securitising bank to originate a new loan to the same firm in the same quarter for the observation not to be absorbed by the firm-time fixed effect. Even with this restriction, we are left with over one million observations. In the robustness section, we will show additional results using specifications with a less saturated set of fixed effects to control for demand (namely country-sector-firm size-time fixed effects as proposed by Degryse, De Jonghe, Jakovljević, Mulier,

[13] The distribution of the propensity score across the treated (securitising) and control (non-securitising) groups of banks is shown in Figure A.2 and suggests that the distribution of the propensity score becomes similar between the two groups of banks after the matching procedure.

and Schepens (2019)). Another potential limitation of using new loans is that the effects may be less precisely estimated, because the size of new loans also depend on redemption patterns, which are netted out when studying changes in loan stocks. To reduce such concerns, we will show that our results are robust to looking at the effects on the growth rate of loans outstanding.

We use different measures of monetary policy shocks MP_t. In our main specifications, we use quarterly changes in the 3-month Overnight Index Swap (OIS3M), which broadly corresponds to changes in the Eurosystem main policy rate, the Deposit Facility Rate, and are commonly used in the literature to capture monetary policy conditions (Jiménez, Ongena, Peydró, and Saurina, 2014; Jasova, Mendicino, Panetti, Peydró, and Supera, 2021). This has the advantage of simplicity, and of containing substantial variation even within the relatively short-term time series we consider.

In robustness checks, we use high-frequency identified monetary policy shocks (Altavilla, Brugnolini, Gürkaynak, Motto, and Ragusa, 2019), cleaned from information effects using the sign restriction proposed by Jarociński and Karadi (2020) and results are broadly similar. These shocks are useful to attenuate concerns that changes in policy rates may be anticipated, and to mitigate concerns over reverse causality (e.g., the central bank raises rates because loan supply is excessive). However, we prefer simple changes in the OIS3M in the baseline specification because the time-series variation of high-frequency monetary policy shocks over our sample is limited (see Figure A.3), and we do not want our results to be driven by just a few, albeit large, shocks.

In further robustness checks, we run a specification using changes in longer-term rates (OIS2Y) which captures expectations of policy rates over the next two years and should therefore be less affected by anticipatory behaviour. We also run specifications adding several lags of policy rate changes, as their effects on lending may be delayed by several quarters.[14] Finally, we run specifications also interacting dummies for securitising banks with inflation and real GDP growth, to strengthen the interpretation of changes in short-term rates as Taylor-rule residuals. Our results are robust to all these alternative specifications.

5 Data and descriptive statistics

We rely on several dataset. First, we use AnaCredit, the euro area credit registry. This covers the universe of loans with a value above 25,000€ granted by credit institutions to legal entities (corporations) in the euro area. The data includes information on the amount disbursed and on the overall amount granted (thus including the quantity that is off balance sheet). In the main specifications, we aggregate disbursed new

[14] Policy rates changes are typically serially correlated. This may lead to biased inference, but we double cluster standard errors at the bank and at the firm level, which yields standard errors robust to serial correlation.

loans at the creditor-debtor-quarter level.[15]

We focus on loans to non-financial corporations. In the main specification, subject to robustness tests, we also exclude loans to the real estate sector, as these can include loans to households in countries where households are incentivised to setup legal entities for purchasing their main residence. We also exclude loans to corporations in the financial and insurance sectors (NACE 2-digit codes 64 and 65). We focus on the period 2019-2025, as AnaCredit starts in the second half of 2018.

We exclude Covid-19 and 2022 energy crisis-related government-guaranteed loans, identified as loans granted after March 2020 and protected by a financial guarantee sponsored by an entity identified as a loan guarantee support institution during the pandemic (such as KfW for Germany, FCG for Italy, etc.) or by an entity in the government sector.

AnaCredit also contains information on whether a loan has been securitized and in this case whether the securitisation is traditional or synthetic (see also Osberghaus and Schepens (2025)).

We use this information to construct an indicator of securitisation activity at the bank-level. This indicator is a dummy taking value 1 if the bank either holds a securitised loan at least once in the period Q1 2019-Q1 2021, or is reported as the servicer of a traditionally securitised loan at least once over the same period. Indeed, in the case of traditional securitisations, banks typically transfer the loan to a financial vehicle corporation (FVC) and therefore no longer appear as creditors to the loan in AnaCredit. They still appear as servicers to the loan meaning that they receive the interest payments from borrowers and transfer these payments to the FVC. We also build measures of securitisation intensity at the bank level, by dividing the value of all loans securitised that the banks holds (or is servicer of for traditional securitisations), by the total value of loans to firms it reports, over the period Q1 2019-Q1 2021.[16]

We then match AnaCredit to bank supervisory data at the entity level to collect various bank income statement, balance sheet, and regulatory characteristics.

Our matched sample contains slightly over 230 euro area banks, which are evenly split between securitising and non-securitising banks given that we constructed the sample using matching *without* replacement.[17] This represents more than a third of the loan stock over this period: the average stock of loans reported in AnaCredit since 2021 amounts to 4.2 trillion euros, of which securitising banks represent around 1.2 trillion, and their matched controls 400 billion.

Table 1 shows descriptive statistics of the main variables we use in our sample.

[15] This ensures consistency across borrower-creditor pairs, as some loans may for different reasons be reported as separate multiple small contracts instead of a single bigger one.

[16] This may lead to small inconsistencies in the calculation of securitisation intensity at the bank level as banks have the possibility, but not the obligation, to split securitised instruments into a securitised and a non-securitised component - which then appear as distinct non-securitised loans in AnaCredit.

[17] Since the matching is done over 2019-2020 while the regressions are run over 2021-2025, several banks drop out of the sample, which explains the difference in the number of banks in the control and treated samples of Table 1.

Panel A.a shows bank characteristics for all banks, while A.b and A.c show a breakdown for securitising and non-securitising banks. Importantly for our project, the ratio of securitisations to total loans (average over the period 2019-2021) displays substantial variation. It is on average 5.6%, and for securitising banks ranges from a first quartile of 0.2% to a third quartile of 16.2%. The share of synthetic securitisations is smaller than that of traditional securitisations, as few banks engage in the former (slightly over 20), although these include the largest banks.

Panel B shows borrower turnover (one of the few borrower characteristics we can observe in AnaCredit). Its distribution with a median of 571,000 euros confirms that our sample includes a large fraction of SMEs, and is thus representative of the euro area economy.

Panel C shows characteristics of loan exposures. Credit flows feature substantial variation, ranging from 13,000 euros at the first quartile to 150,000 euros at the third quartile. PDs (available only for loans granted by banks that use internal ratings based models) average 1.1% and overall are in line with the average AnaCredit sample (Kosekova, Maddaloni, Papoutsi, and Schivardi, 2026). In this panel we also include statistics for the quarterly change in the OIS3M, our measure of monetary policy stance. That includes both positive and negative values, in line with our sample including both periods of tightening and of easing of monetary policy.

6 Results

6.1 Main results

As a first step, we test formally whether securitising banks are more reactive to monetary policy, by estimating equation 1. Table 2 displays the results. We allow monetary policy to affect lending with a two quarters lag, and we gradually saturate the regression with fixed effects and interaction of the dummy for securitising banks with all other bank characteristics. Column (1) shows that monetary tightening (an increase in the 3-months OIS) is associated with a contraction in lending, in a specification without fixed effects and without the interaction between securitising banks and monetary policy shocks. This sanity check confirms that monetary policy shocks have the expected effect on lending, albeit in a less-well identified specification. From column (2)[18] onwards, we progressively saturate the specification in Equation 1 with different sets of fixed-effects. Column (3) includes sector-country-firm size-time fixed effects as an alternative to borrower-time fixed effects to control for firm unobservables (Degryse et al., 2019).[19] Importantly, the interaction

[18]The specification in column (2) has a negative but marginally insignificant effect for the double interaction between securitising banks and monetary policy shock, with a p-value of 0.18

[19]This specification has the advantage of including observations in which firms interact with only one bank. As such, the sample size is substantially larger than that used in the specifications shown in column (4), (5) and (6).

Table 1: Descriptive statistics

	mean	p50	sd	p25	p75	min	max	count
Panel A.a.: All banks								
Total assets (€Tn)	0.051	0.007	0.085	0.002	0.056	0.000	0.273	235
CET1 ratio	0.185	0.170	0.060	0.145	0.214	0.099	0.503	235
ROE	0.068	0.079	0.073	0.044	0.113	-0.205	0.348	235
LCR	2.979	2.332	2.306	1.763	3.398	1.200	18.152	231
Deposits-assets ratio	0.546	0.623	0.223	0.433	0.714	0.002	0.906	233
Securities-assets ratio	0.200	0.192	0.132	0.085	0.317	0.000	0.507	235
NPL Ratio	0.038	0.030	0.036	0.018	0.046	0.000	0.218	235
ShareSec	0.056	0.000	0.121	0.000	0.039	0.000	0.647	237
ShareTrad	0.045	0.000	0.114	0.000	0.022	0.000	0.647	237
ShareSynth	0.011	0.000	0.050	0.000	0.000	0.000	0.560	237
Panel A.b.: Securitising banks								
Total assets (€Tn)	0.056	0.008	0.090	0.002	0.065	0.000	0.273	123
CET1 ratio	0.182	0.165	0.053	0.143	0.217	0.099	0.336	123
ROE	0.073	0.091	0.072	0.057	0.115	-0.205	0.193	123
LCR	3.101	2.511	2.237	1.885	3.512	1.271	16.577	121
Deposits-assets ratio	0.555	0.620	0.197	0.471	0.698	0.005	0.801	122
Securities-assets ratio	0.202	0.201	0.125	0.098	0.314	0.000	0.445	123
NPL Ratio	0.037	0.032	0.032	0.019	0.045	0.006	0.218	123
ShareSec	0.108	0.037	0.151	0.002	0.162	0.000	0.647	123
ShareTrad	0.087	0.020	0.146	0.000	0.090	0.000	0.647	123
ShareSynth	0.020	0.000	0.069	0.000	0.000	0.000	0.560	123
Panel A.c.: Non-securitising banks								
Total assets (€Tn)	0.046	0.005	0.080	0.002	0.051	0.000	0.273	112
CET1 ratio	0.189	0.176	0.067	0.150	0.210	0.099	0.503	112
ROE	0.063	0.066	0.073	0.030	0.103	-0.179	0.348	112
LCR	2.844	2.168	2.383	1.712	3.132	1.200	18.152	110
Deposits-assets ratio	0.536	0.623	0.249	0.326	0.733	0.002	0.906	111
Securities-assets ratio	0.197	0.184	0.140	0.068	0.327	0.000	0.507	112
NPL Ratio	0.039	0.029	0.039	0.014	0.048	0.000	0.218	112
Panel B: Borrowers								
Turnover (€Mn)	33.812	0.567	2460.239	0.157	2.030	-0.737	1568649.040	1448625
Panel C: Exposures								
TotLoans (€Mn)	0.848	0.050	19.288	0.016	0.171	0.000	11546.604	6789463
PD	0.031	0.011	0.063	0.004	0.029	0.000	1.000	3456982
ΔOIS3M (sd)	0.331	-0.004	1.292	-0.558	0.870	-1.352	3.816	6789463

Notes: the "count" column contains the number of unique observations with non-missing data, knowing that the dataset is collapsed at the bank level for the first three panels, at the borrower level for panel B, and remains at the bank-borrower level for panel C. $\Delta OIS3M$ is standardized in the entire time series of this variable, which is why the standard deviation reported is not equal to 1.

between the monetary policy shock and the dummy for securitising banks is negative and significant. This is still the case when we progressively saturate the specification with bank level controls, fixed effects and interactions between the bank level controls and the monetary policy shock. Our preferred specification is that of column (5), in which we both use borrower-time fixed effects to control for demand, and add an interaction term between monetary policy and bank size. This gives additional confidence that the results are not driven by confounding factors, given that many bank characteristics are correlated with size.

Overall, the effects are economically significant: a 1 standard deviation increase in the policy rate, worth about 0.4 percentage points, leads securitising banks to contract new lending by about 5 percentage points more than other banks two quarters after the shock.

The estimates are quantitatively similar across specifications, suggesting that once borrower-bank fixed effects are included, other controls, covariates and fixed effects bear little effects on the results. This attenuates concerns that our empirical approach may still be affected by selection on unobservables (Altonji, Elder, and Taber (2005) and Oster (2019)), providing support to our identification strategy.

Next, we exploit the time dimension of our data to measure the effect of monetary policy across different time horizons in a local projection type of setting. This is important to understand how the differential effect of monetary policy shocks on securitising banks evolves over time and in particular whether it reverses after a few periods or show persistence. Results are plotted in Figure 4 and shown in Table A.2.[20] Securitising banks cut lending by around 6.5% more relative to non-securitising banks one quarter after a 1 standard deviation monetary policy shock. The effects remain but wane in the two subsequent quarters, and are insignificant after a year, but do not reverse. This suggests that monetary policy has permanent effects on relative lending between securitising and non-securitising banks.

6.2 Robustness checks

Next, we run a series of complementary tests to check the robustness of the main results. Results are shown in Table A.3 (column (1) reproduces the baseline results to ease comparability). We first use matching with replacement instead of without replacement (column (2)), next we use matching with replacement as in the baseline but weighting control observations by the number of times the corresponding bank is matched to a treated banks (column (3)). We then include off balance sheet loans in the measure of granted loans used as dependent variable (column (4)). In addition, we include loans to the real estate sector (column (5)). The interaction between the monetary policy shock and the dummy for securitising banks is negative, highly significant and similar in magnitude across specifications.

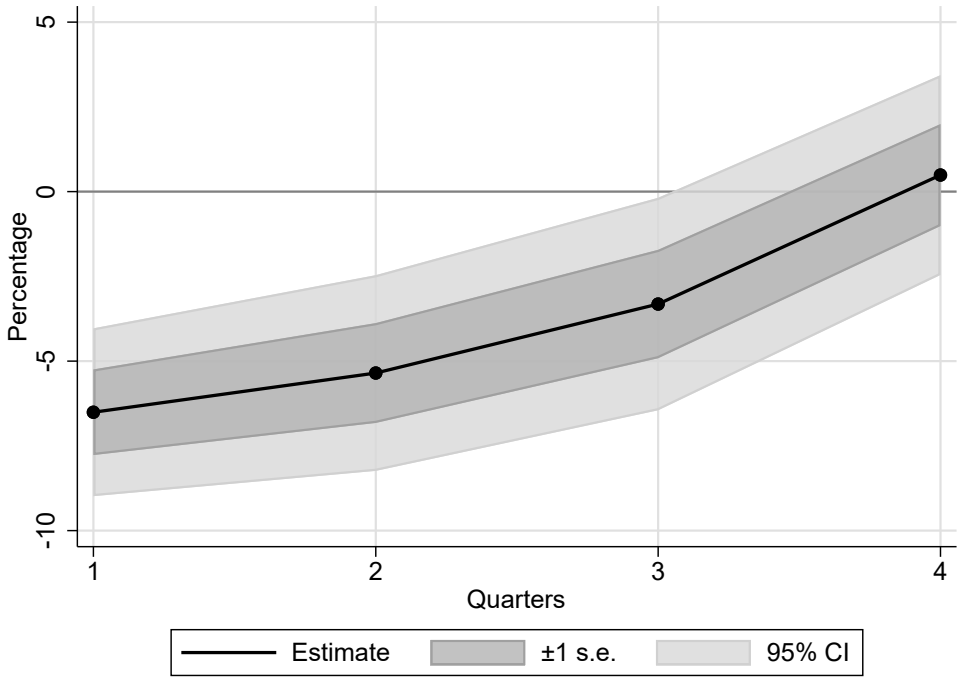
[20] Table A.4 shows the same specifications with country-industry-firm size-time fixed effects instead of firm-time fixed effects. Results are qualitatively similar, although the effects loose statistical significance beyond 2 quarters.

Table 2: Effect of policy rate increase on lending

	(1) NoFE	(2) BankFE	(3) SecCntrySzTimeFE	(4) NoTAInteraction	(5) Baseline	(6) AllInteraction
Securitise	-0.055					
	(0.293)					
L(MP)	-0.047*	-0.001				
	(0.027)	(0.019)				
Securitise × L(MP)		-0.043	-0.042**	-0.057***	-0.054***	-0.057***
		(0.032)	(0.019)	(0.015)	(0.015)	(0.016)
L(TotAssetsLog)	-0.127*	-0.320	-0.255**	-0.334***	-0.330***	-0.322***
	(0.068)	(0.272)	(0.106)	(0.103)	(0.103)	(0.103)
L(CET1r)	1.688	-1.964	-0.932*	0.193	0.230	0.191
	(3.296)	(2.339)	(0.561)	(0.498)	(0.518)	(0.551)
L(ROE)	0.390	0.687***	0.090	-0.027	-0.029	0.002
	(0.455)	(0.237)	(0.069)	(0.087)	(0.086)	(0.100)
L(LCR)	0.033	-0.035***	-0.012	0.005	0.005	0.005
	(0.039)	(0.011)	(0.013)	(0.006)	(0.006)	(0.006)
L(DepositsAssets)	-0.777	1.205**	-0.337	-0.128	-0.120	-0.108
	(0.764)	(0.610)	(0.223)	(0.196)	(0.186)	(0.179)
L(SecuritiesAssets)	0.734	1.127	-0.247	0.506	0.470	0.450
	(1.091)	(0.991)	(0.354)	(0.357)	(0.368)	(0.356)
L(NPLRatio)	-9.168**	-8.820***	-0.707	-2.901**	-2.901**	-3.012**
	(4.014)	(3.052)	(1.971)	(1.318)	(1.318)	(1.380)
L(TotAssetsLog) × L(MP)			-0.009**		-0.002	0.000
			(0.004)		(0.004)	(0.005)
L(CET1r) × L(MP)						0.014
						(0.160)
L(ROE) × L(MP)						-0.051
						(0.087)
L(LCR) × L(MP)						-0.000
						(0.004)
L(DepositsAssets) × L(MP)						-0.030
						(0.050)
L(SecuritiesAssets) × L(MP)						0.053
						(0.076)
L(NPLRatio) × L(MP)						0.515
						(0.365)
Bank	No	Yes	No	No	No	No
Borrower-time	No	No	No	Yes	Yes	Yes
Borrower-bank	No	No	Yes	Yes	Yes	Yes
Sctr-cntry-sz-time	No	No	Yes	No	No	No
Observations	6374234	6374231	4686600	1133893	1133893	1133893
R^2	0.009	0.069	0.651	0.826	0.826	0.826
Adj R^2	0.009	0.069	0.545	0.567	0.567	0.567

Notes: The table shows regressions of the log new loans granted on monetary policy shocks (MP) measured in standard deviation of change in OIS3M where 1 standard deviation is worth around 0.4pp. Quarterly data between Q1-2021 and Q4-2025. Securitise is a dummy equal 1 if the bank securitised loans in 2019 and 2020. Loan level data from Anacredit, bank characteristics from Supervisory data. L denotes lagged values. Standard errors, double clustered at the bank and borrower level in parentheses.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Figure 4: Additional sensitivity of securitising banks to policy rate increase



Notes: Effect of a 1 standard deviation (0.4pp) policy rate increase. 95% (resp. 1sd) confidence bands in light (resp. dark) grey.

We also run the same analysis using as dependent variable the change in log stock of loans, instead of loan flows.[21] This has the advantage of netting out lending flows against loan repayments and of not requiring firms to take new loans in the same period from a securitising and a non-securitising bank: it just requires that firms have at least one outstanding loan from each type of bank that is observed at least twice in two consecutive quarters (to be able to observe at least two growth rates per bank-firm relationship). This comes at the expense of narrowing the analysis to the intensive margin, and of giving a larger weight to loan repayment dynamics. Results are presented in Table A.5. They show that securitising banks indeed contract lending more following a monetary policy tightening, with effects that cumulate over time. One year after a one standard deviation shock, loan growth for securitising banks is 1.2% lower than for other banks.

As discussed in Section 4, an important choice in our analysis pertains to the definition of monetary policy shocks. In Table A.6, we show results using high-frequency identified monetary policy shocks (Altavilla et al. (2019)). The results are strongly significant in the first three quarters using these shocks. A one standard deviation contractionary shock leads to a drop in lending of 6 to 8% in each of those three quarters, which

[21] The log change of the stock of credit is consistent with the baseline in which we look at the flow of new loans.

are magnitudes comparables to those we obtain in the baseline.

We also use changes in OIS2Y instead of changes in OIS3M to alleviate concerns that shocks may be anticipating, while still estimating directly the effect of rate changes. OIS2Y captures the expected path of policy rates up to 2 years ahead. The results, presented in Table A.7, are consistent with those obtained in the baseline using the OIS3M, slightly smaller in size but also slightly more persistent.

Next, in Appendix Table A.8, we add one lag of changes in OIS3M and its interactions, while in Appendix Table A.9 we add an increasing number of lags to look at the effects one period ahead. In both setups, the effect of securitisation on transmission remains broadly similar.

In a further robustness exercise presented in Table A.10, we add interactions of GDP growth and inflation (HICP growth) with the securitisation dummy, which allows for an interpretation of our policy rate changes as Taylor-rule residuals. Again, the results are not materially affected by the inclusion of these variables.

Finally, we estimate the effects of securitisation depending on the intensity in the use of securitisation across banks, thus a continuous measure rather than a dummy variable. An advantage of this approach is that banks securitising a greater share of their loans should indeed be the most sensitive to monetary policy changes. Yet, this approach has limitations as the intensity of securitisation evolved during the period of study across banks, and, as argued in Section 4, banks with a more intensive use of securitisation may differ from those with a less intensive use. To measure the use of securitisation, we calculate the loan weighted-average ratio between loans securitised and loans non-securitised in bank portfolios over Q1 2019-Q1 2021. To attenuate identification concerns, we thus use an ex-ante measure and include a large set of controls, as in the baseline and in the propensity score matching. These, together with the interaction of bank size with monetary policy, alleviate these concerns. Results are presented in Table A.11. They show that banks with a more intensive use of securitisation indeed react more to monetary policy. Unlike the main analyses, the effects here seem to grow over time, with a stronger sensitivity three to four quarters after the shock. One year after a 1 standard deviation monetary policy shock, a bank having securitised 1% of its loan portfolio would lend around 0.24% less than a bank with no securitised loan.

6.3 Mechanism

6.3.1 Securitisation supports bank lending

The first necessary condition for securitising banks to be more sensitive to monetary policy is that securitisation itself allows them to increase lending.

As detailed in Section 3, traditional securitisations supports bank funding, while securitisations associated with SRTs provide capital relief by allowing banks to retain capital only against the appropriately risk-

weighted retained tranches. The resulting balance sheet capacity can, in turn, support additional loan origination, to new or existing borrowers.

To test whether this is the case, we look at the effects of securitisation on lending. Specifically, we look at how bank lending reacts when banks report securitisations for the first time, compared to similar banks which never report such transactions. Since the decision to start doing securitisations is endogenous, we match those banks that start securitising after 2021 to banks that never do, on pre-2021 bank characteristics, using the same matching approach as used for the main results. While this does not allow us to make causal claims, it can still provide evidence about a conditional correlation, which is a pre-condition to understand why monetary policy affects more strongly banks more reliant on securitisation.

We use the diff-in-diff estimator proposed by Callaway and Sant'Anna (2021). This approach is warranted in this test given that our treatment is staggered (banks do not all start securitising in the same period), and that the treatment effects vary over time (banks likely gradually increase their usage of securitisation).[22]

We estimate the effects of securitisation on the annual growth of originated loans, measured as on-balance sheet loans to which traditionally securitised loans are added back.[23] The treatment variable is a dummy taking value 1 starting in the first period in which the bank reports a securitisation, if any. In a complementary approach, we focus on SRTs, testing its effects on lending. The advantage is that SRTs are a newer "technology" that allows us to include a larger set of newly treated banks (62 vs 32 for securitisations[24]). We run the exercise on bank-level supervisory data, rather than on AnaCredit, since this allows for a better identification of the first date in which a bank started securitising loans, or engaging in SRTs.

As for the baseline specification, we match banks on the following characteristics: ROE, NPL ratio, log total assets, LCR, deposit ratio, securities holdings ratio, CET1 ratio, the share of exposures in services, construction, and industry, and a dummy for whether the bank is a significant institution. We match using the nearest neighbor method without replacement. The results of the matching are shown in Figure A.5 and A.6 when the treatment is securitising for the first time, and in Figure A.7 and A.8 for SRTs. As expected, they show that treated banks (those already reporting some securitisations or SRTs pre-2021) are on average larger than untreated ones, and have higher NPL ratios. The matching allows for a better pairing of banks in the case of SRTs, as there is a bigger of banks doing SRTs for the first time in our sample. Tables A.12 and A.13 show descriptive statistics of both matched sample of banks. The matching approach allows to

[22] In a nutshell, the method consists in comparing treated units only to not-yet-treated units, for any treatment period. In contrast, the two-way fixed effects estimator also compares treated units to already treated units, which may still be adjusting their balance sheet due to the lagged effects of the treatment. See Roth, Sant'Anna, Bilinski, and Poe (2023) for a thorough review of diff-in-diff implementation.

[23] Synthetically securitised loans remain on bank balance sheets and therefore, do not have to be added back. Tranches of retained traditionally securitised loans would generally be reported as financial assets and no longer as loans in FINREP supervisory data.

[24] 26 out of these 32 newly securitising banks report an SRT as part of their first securitisation, so these exercises do not allow us to distinguish the potential differences between SRTs and other types of securitisations.

harmonize well those distributions as shown by the matching diagnostics displayed in Tables A.14 and A.15.

The results of the relationship between securitisation and lending are plotted in Figure 5. Loan origination increases immediately after a bank starts securitising, though significance is attained only after 6 quarters. Instead, pure SRTs lead to an immediate rise in lending, which would be consistent with the systematic capital space that these operations provide.

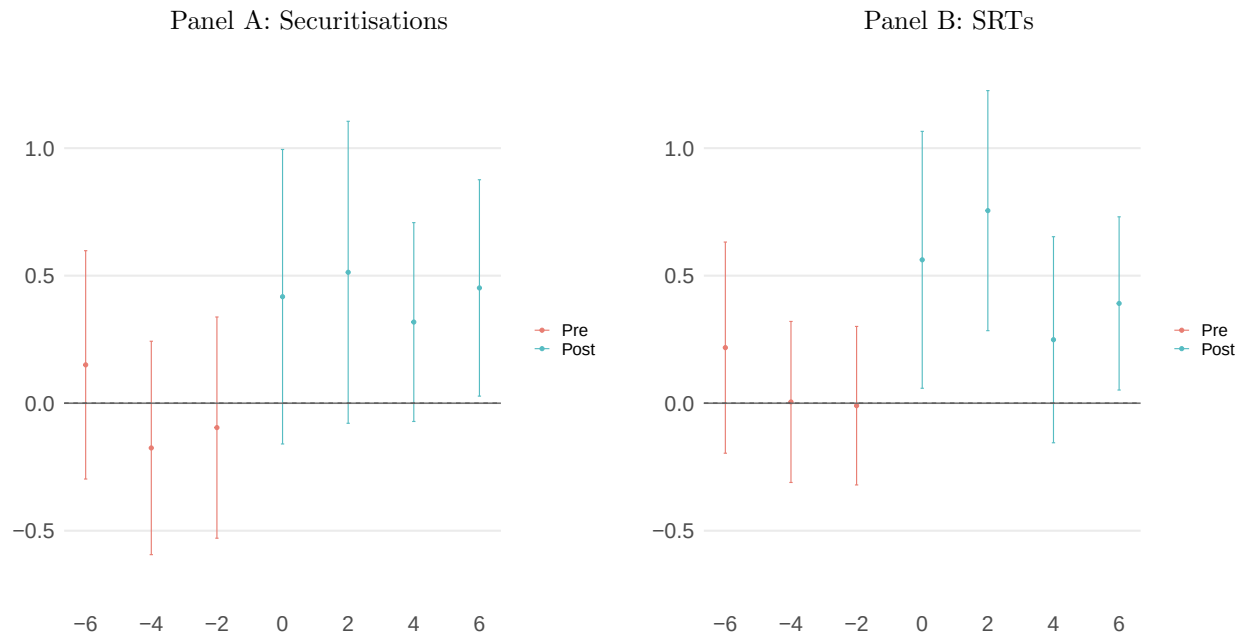
We also look at the correlation with other bank characteristics. Figure 6 shows that after banks start securitising or using SRTs, CET1 ratios increase, while NPL ratios drop. On the other hand, the first usage of these transactions does not correlate with the LCR, consistent with the fact that banks starting to securitise over the period of interest mostly do it via SRTs for capital relief purposes. Finally, SRTs translate into increased payouts to shareholders, unlike securitisations.

To summarise, these findings are consistent with the hypothesis that securitisation, and especially SRTs free up balance sheet space, which banks use to strengthen their balance sheet, increase payouts, and, crucially for our results, expand lending.

We now provide some evidence on the channels through which monetary policy affects bank lending through securitisations. As discussed in Section 3 traditional securitisations can provide funding and liquidity, and capital relief if associated to an SRT. In contrast, a synthetic securitisation is generally designed to provide mainly capital relief through the use of SRTs. Unfortunately, we cannot observe whether individual securitised loans are part of an SRT or not in AnaCredit. However, virtually all synthetic securitisations are associated to an SRT.

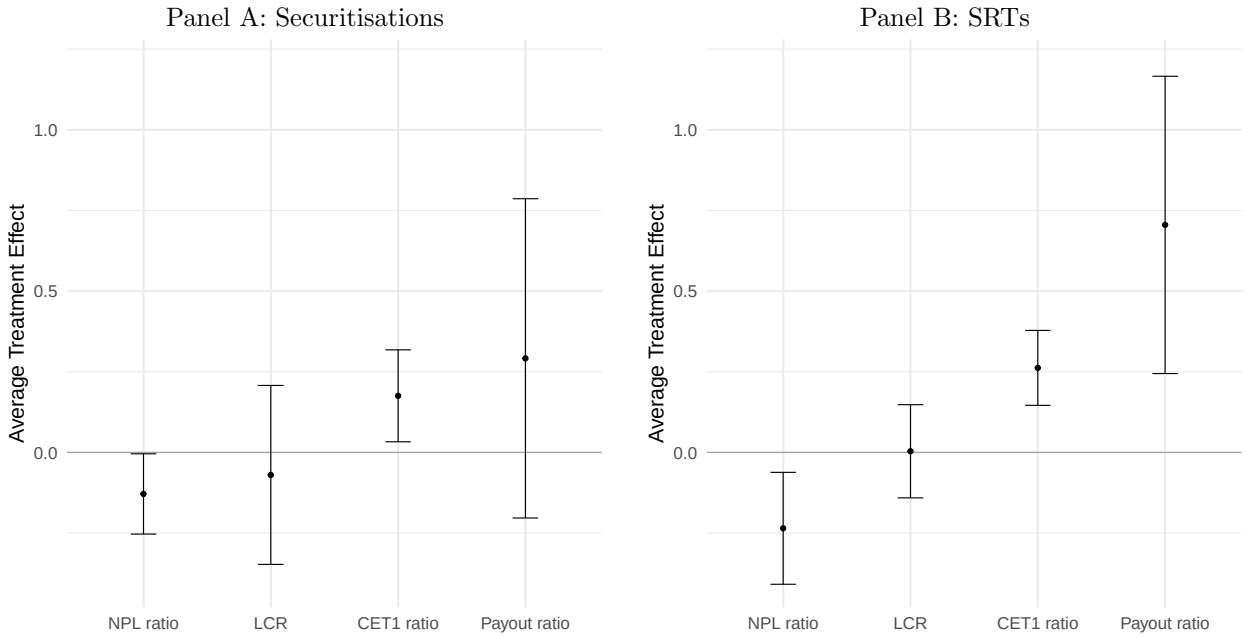
Therefore, we test whether banks actively using synthetic securitisations, and thus SRTs, are more sensitive to monetary policy shocks, than banks using traditional securitisations (possibly not associated to SRTs) and than banks not relying on securitisation (but matched on observables). To test for this possibility, we interact monetary policy respectively with the average share of loans synthetically securitised and traditionally securitised over Q1 2019-Q1 2021. The results are shown in Table A.16: two quarters ahead, a 1 percentage point higher share of loans synthetically securitised is associated to a 0.4 percentage point larger drop in lending upon a 1 standard deviation policy rate hike. Instead, higher shares of traditionally securitised loans are not associated to any further drop in lending. Overall, this suggests that the possibility to obtain capital relief through securitisation is a key explanation of the greater reactivity of lending of securitising banks to monetary policy. It is still left to uncover the mechanism driving the influence of monetary policy on the possibility of securitising loans i.e., on the demand side. This is the object of the following section.

Figure 5: Effect of securitisations on bank lending



Notes:This figure shows the estimated effect of securitisations (panel A) and SRTs (panel B) on loan origination in a diff-and-diff estimation à la Callaway and Sant'Anna (2021). Whiskers represent 90% confidence bands. Loans are annual growth rates to private-sector non-financial borrowers. To calculate originated loans, we add the value of traditional securitisations back to loans reported on balance sheet. Heteroskedasticity-robust standard errors. Source: ECB Supervisory reporting. Latest observation: Q4 2025.

Figure 6: Effect of securitisations and SRTs on bank balance sheet characteristics and payouts



Notes: This figure shows the estimated effect of securitisations (panel A) and SRTs (panel B) on bank balance sheet characteristics and payouts in a diff-in-diff estimation à la Callaway and Sant'Anna (2021). Whiskers represent 90% confidence bands. Source: ECB Supervisory reporting. Latest observation: Q4 2025.

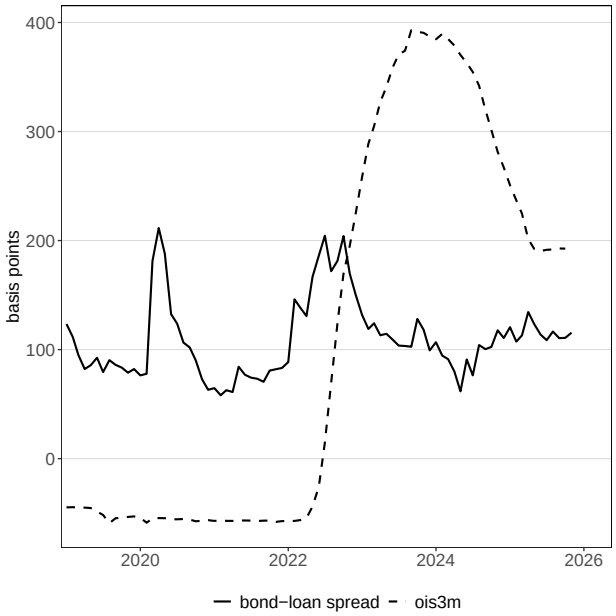
6.3.2 Demand for securitisation reacts to monetary policy

As a second step to understand the mechanisms driving our results, we document that monetary policy affects the demand for securitisation more strongly than it affects demand for other sources of funding, such as deposits, and even affects more strongly demand for securitisation than demand for safer marketable securities such as covered bonds (see the discussion in Section 3).

First, we provide descriptive evidence from the ECB's quarterly Bank Lending Survey. Among other things, the survey asks banks whether funding conditions for different instruments tightened or eased relative to the previous survey. Figure A.9 shows that throughout the 2022-2025 monetary policy cycle, euro area banks reported more pronounced changes in their access to funding through securitisation than through retail funding. In the hiking phase, a higher percentage of banks reported a tightening of funding through securitisation than through retail funding. The tightening of access to this type of funding also started in early 2022, while it started only to tighten only in the second part of 2022 for retail funding. The difference during the easing cycle is less pronounced, but still shows a net easing of access to securitisations in early 2024, while for retail funding conditions remained broadly unchanged throughout successive rate cuts.

One reason why access to securitisation may be more sensitive than access to retail funding is that market

Figure 7: Bond loan spreads and OIS3M



Notes: Spreads on new loans to firms and on non-financial corporate bonds are calculated by subtracting the OIS rate of the corresponding maturity, rounded at the closest year. Value-weighted average spreads are calculated by month, and bond-loan spreads are then calculated by difference. Source: CSEC and AnaCredit. Latest observation: November 2025.

financing conditions typically react in real time to changes in market rates. Instead, the pass through to deposit rates is sluggish and partial, allowing banks to pass through monetary policy changes to lending rates more gradually. As a result, securitisation becomes unattractive in the wake of a monetary policy tightening, as loans would have to be sold at a discount to meet market participants' return expectations.

Figure 7 plots the difference between the maturity-matched spread between non-financial corporate bond yields and the corresponding OIS rates, and similarly maturity-matched spreads on new loans to firms. The solid line increases beginning of 2022 when long-term OIS rates start to increase, reflecting the rise in anticipated policy rates. This spread remains broadly above average all the way into end-2023, when policy rate hikes stop. In early 2024, this spread temporarily dips, coincidentally with the beginning of the easing cycle, before stabilising slightly above 100 basis points. This suggests that lending rates react sluggishly to changes in policy rates, making securitisation unattractive in the wake of tightening shocks.

We demonstrate this more formally through local projection exercises, by showing that monetary policy shocks lead to lower loan securitisation and to a lower holding of securitisations by NBFIs.[25]

We first examine how the proportion of securitised loans changes upon monetary policy shocks. Specifi-

[25]Formally, we estimate the following model: $y_{t+h} = \beta * \Delta OIS3M_t + \gamma * \Delta OIS3M_{t-1} + \rho * y_{t-1} + \epsilon_{t+h}$, where h is the projection horizon and goes from 0 to 4 quarters.

cally, we calculate the share of securitised loans in the stock of total loans, at the bank-residual maturity-risk level. We split loans into three residual maturity brackets (below 1 year, between 1 and 5 years, above 5 years). Risk buckets are obtained by mapping PDs reported in AnaCredit into 5 brackets according to Eurosystem credit quality assessment tables.[26] We restrict the analysis to banks which securitised loans at least once. We estimate for asset class k (residual maturity - risk brackets), bank j, month t, horizon h the following local projection:

$$ShareSec_{j,k,t+h} = \beta \times MP_t + X_{jt-1} + FE_{m(k),r(k),j} + \epsilon_{j,k,t+h}, \quad (2)$$

where the dependent variable is the share of loans securitised in the stock of loans by bracket. We control for lagged values of bank CET1 ratio, NPL ratio, LCR, log total assets, and ROE. We cluster standard errors at the creditor-residual maturity bracket - risk bracket.

Results, shown in Figure 8, indicate that a 1 percentage point increase in the OIS3M leads to a drop in the share of securitised loans of about 4 percentage points in each bracket, one year after the increase. The drop reaches a trough after a year, and the share of securitised loans then gradually increases back, consistent with the idea that the relative drop of securitisation activity remains temporary - though it durably affects the stock of securitised loans.

Figure A.10 plots the results from the same specification, using as shock high-frequency changes in OIS3M during monetary policy events (Altavilla et al., 2019), to which sign restrictions as in Jarociński and Karadi (2020) are applied. The results are similar, with a more frontloaded materialization of the drop in securitisation, and a similar persistence of the effects.

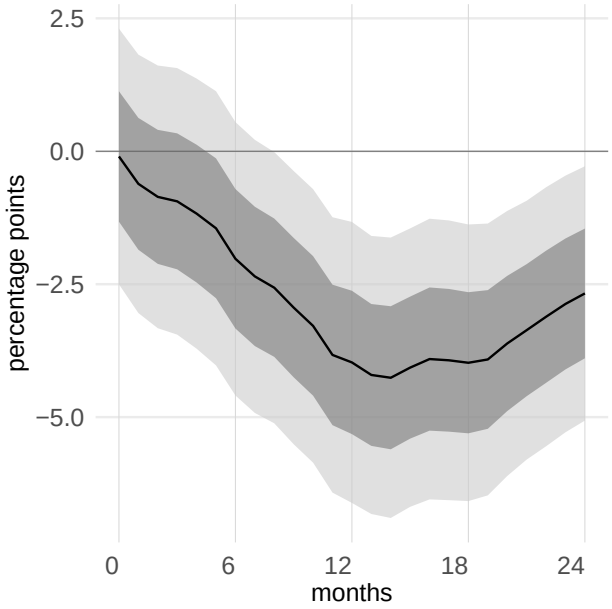
The fact that securitisation drops as a share of total loans suggests that securitisation is more sensitive as a source of funding or capital than the traditional sources banks rely on. Since demand for securitised loans mainly originates from NBFIs, we now look at how their holdings of these instruments change with monetary policy.

We test first, again through a local projection, how holdings of securitisations by NBFIs change in response to monetary policy shocks. To do that, we rely on aggregate data from Securities Holdings Statistics which provide quarterly records of individual securities holdings by sector and country in the euro area. By construction, this analysis is therefore restricted to traditional securitisations, and to the small share of synthetic securitisations involving the issuance of securities namely, credit linked notes. Our dependent variable is the cumulated change in the log amount of holdings of securitisations.

Results are shown in Figure 9 and indicate that NBFIs reduce their holdings in absolute amounts after a

[26] See https://www.ecb.europa.eu/mopo/coll/risk/ecaf/html/index.en.html.

Figure 8: Impact of monetary policy on the share of securitised loans



Notes: Chart plots the estimates from Equation 2 with 95% (resp. 1sd) confidence bands in light (resp. dark) grey. Monetary policy is measured using monthly changes in OIS3M in percentage points. Source: AnaCredit.

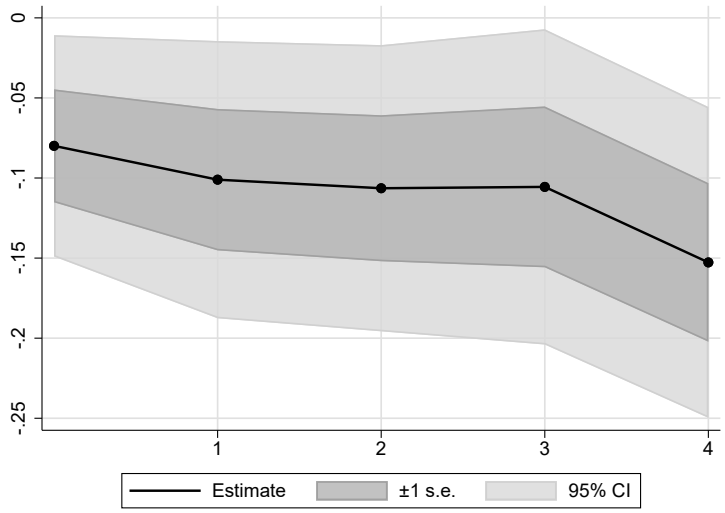
monetary tightening. Quantitatively, a 100 bps increase in the 3 months OIS is associated with a 10% drop in NBFI holdings of securitisations.

Second, we test whether this drop in holdings by NBFIs is specific to holdings of securitisations. Indeed, it is well know that non-banks also transmit monetary policy and reduce securities holdings upon monetary policy tightening. Our second specification uses the cumulated change in the share of securitisations over the sum of securitisations and covered bonds as a dependent variable. This second specification allows to better control for aggregate dynamics, and allows to compare holdings of relatively safe bank securities like covered bonds, with holdings of riskier securities like securitisations.

Results are shown in Figure 10. They indicate that NBFIs also reduce their holdings of securitisations relative to covered bonds, suggesting that a risk taking channel may be at play. Monetary policy tightening reduces NBFIs' appetite for risk, leading to a stronger reduction in their holdings of riskier securities. Quantitatively, a 100 bps increase in the 3 months OIS is associated with a 4.5 percentage points drop in the share of securitisations relative to securitisations plus covered bonds held by NBFIs.

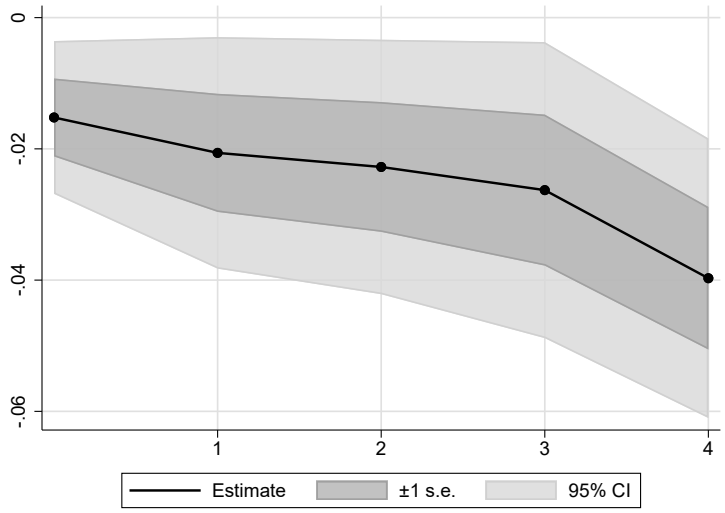
Overall, this evidence suggests that monetary policy affects securitisation activity through a contraction in the demand for securitisations by NBFIs, the major investors in this asset class. As a consequence, banks, finding it more difficult and/or costly to securitise loans, reduce the origination of new loans.

Figure 9: Impact of monetary policy on holdings of securitised loans by NBFIs



Notes: Chart plots the estimates from a local projection of NBFI holdings of securitised loans, with 95% confidence bands. Monetary policy is measured using monthly changes in OIS3M in percentage points. Source: ECB Securities Holdings Statistics.

Figure 10: Impact of monetary policy on the share of securitised loans within securitised loans and covered bonds, by NBFIs



Notes: Chart plots the estimates from a local projection of the share of securitised loans in NBFI holdings of securitised loans plus covered bonds, with 95% confidence bands. Monetary policy is measured using monthly changes in OIS3M in percentage points. Source: ECB Securities Holdings Statistics.

The fact that access to securitisation tightens with monetary policy should have more acute consequences for loans which are more securitisable. In what follows, we provide several pieces of evidence consistent with this hypothesis, which lends further support to our mechanism.

Descriptive evidence shows that in equilibrium, banks tend to securitise loans with longer maturity. Half of new loans have a maturity below 1 year, but they represent only around 10% of newly securitised loans (see Figure A.11).[27] If securitising banks affected by a rate hike decide to cut in priority loans that would have had greater potential to be securitised, they should cut first loans with an original maturity above 1 year.

We test this prediction by turning again to AnaCredit loan-level data to estimate Equation 1, but using new loans of maturity above or below 1 year as dependent variable. Results are plotted in Figure 11 (and estimates shown in Appendix Tables A.17 and A.18). They indicate that the relative reduction in lending by securitising banks is driven by a drop in long-term loans. Banks also cut short-term loans, but to a (significantly) lower extent.[28]

In a similar fashion, borrower riskiness distribution differs between new loans and newly securitised loans. In Figure A.12, we break down loans by borrower PD quartile, and show that loans in the second quartile of PDs are over-represented in newly securitised loans, at the expense of loans in the highest quartile of PDs (the riskiest group). Securitising banks should thus cut loans relatively more for the first three quartiles of PD, and relatively less for the last quartile, for which loans would in any case be less likely to be securitised. Results presented in Table A.19 show that the relative tightening of securitising banks for the riskiest borrowers is consistently weaker than that for the safer borrowers in the bottom three PD quartiles.

Overall, evidence in this sub-section suggests that: 1. securitisation is associated with an overall expansion in bank lending; 2. that this expansion in lending is driven by capital relief via SRTs 3. after a monetary policy tightening the demand for securitisation by NBFIs drops making it less viable for banks to securitise loans; 4. consistently, loans that are more likely to be securitised are those that contract more strongly after a monetary tightening. Taken together, our results point to an effect of monetary policy on the demand for securitisation, which translates into a further sensitivity of lending by securitising banks.

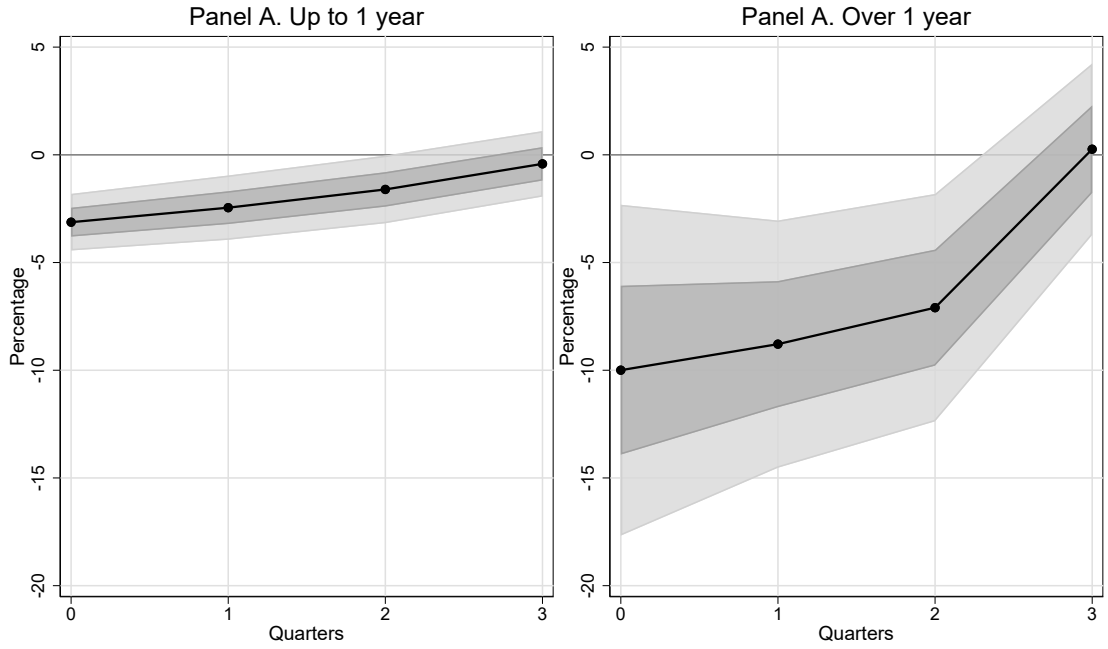
6.4 Aggregate firm-level effects

So far, results indicate that, following monetary tightening (easing), banks more reliant on securitisations contract (expand) credit more than banks less reliant on securitisations. However, firms may reallocate credit

[27] While this may reflect the different maturity of different loan types, e.g. credit lines versus term loans, for our purpose what matters is that certain loans are more easily securitisable than other loans.

[28] Notice that we are controlling for firm*time and firm*bank fixed effects in these specifications, which, absent bank-specific demand for credit, controls for firm demand. This assumption is more likely to be satisfied in this setting than in the baseline, as we are distinguishing loans by maturity, thus effectively comparing the dynamics of the same loan type across banks.

Figure 11: Additional sensitivity of securitising banks to policy rate increase, by original maturity



Notes: Effect of a 1 standard deviation policy rate increase depending on loan original maturity. 95% (resp. 1sd) confidence bands in light (resp. dark) grey. MP measured in standard deviation of change in OIS3M where 1 standard deviation is worth around 0.4pp. Firm-time fixed effects as in Khwaja and Mian (2008).

across different lenders, and experience no aggregate drop in borrowing. Hence, we now investigate whether the stronger transmission of monetary policy shocks by securitising banks translates into an overall change in access to credit for borrowers. This is a necessary condition to observe effects on real firm outcomes (e.g., investment, employment, sales).

To test for firm-level effects, we aggregate new loans at the firm-level and build measures of firm-level exposures to securitising banks, as well as to other bank characteristics. We take bank characteristics at *t-1* of all banks which lent at least once to the firm in the four quarters preceding t. All bank characteristics are weighted by loan flow shares from that bank in those four quarters.

Formally, we estimate variants of the following equation for firm i in quarter t:

$$log(Loans_{it}) = \beta \times ExpSec_{it-1} \times MP_{t-1} + \gamma \times log(TA_{it-1}) \times MP_{t-1} + X_{it-1} + FE_i + FE_{scst} + \epsilon_{it}, \quad (3)$$

where $ExpSec_{it-1}$ is a measure of firm-level exposure to securitising banks, and X_{it-1} the firm-level exposure to different bank characteristics:

$$ExpSec_{it-1} = \frac{\sum_j 1\{Sec\}_{jt} \times \sum_{s=1}^{4} Loans_{ijt-s}}{\sum_j \sum_{s=1}^{4} Loans_{ijt-s}}$$

$$X_{it-1} = \frac{\sum_j X_{jt-1} \times \sum_{s=1}^{4} Loans_{ijt-s}}{\sum_j \sum_{s=1}^{4} Loans_{ijt-s}}$$

FE_{scst} are sector-country-firm size-time fixed effects, controlling, at least partly, for demand dynamics. Results are displayed in Table 3 and indicate that firms borrowing more from securitising banks indeed experience lower flows of new loans upon monetary policy tightening shocks.

As a robustness check, we also estimate an alternative specification where exposure to securitising banks is defined as receiving loans from a securitising bank at least once over the preceding year, and add a similar dummy for whether the firm is also exposed to a non-securitising banks. Results shown in Table A.20 show that effects are somewhat dampened when firms already have a relationship with a non-securitising bank.

Overall, these results indicate that upon an unexpected monetary policy tightening, firms borrowing more from securitising banks experience a stronger contraction of lending, which they cannot fully compensate by increasing borrowing from non-securitising banks. The opposite occurs during monetary easings, in which borrowers more exposed to non-securitising banks experience (relatively) lower credit growth than borrowers more exposed to securitising banks.

Table 3: Effect of policy rate increase on lending - firm level analysis, weighted exposures

	(1)	(2)	(3)	(4)
	Lead1	Lead2	Lead3	Lead4
L(ExpSec)	-0.071	0.020	0.119**	0.076
	(0.046)	(0.048)	(0.049)	(0.050)
L(ExpSec) × L(MP)	-0.038**	-0.071***	-0.074***	-0.035**
	(0.015)	(0.016)	(0.016)	(0.017)
PD	-0.762***	-0.993***	-1.083***	-1.314***
	(0.058)	(0.066)	(0.079)	(0.093)
SalesLog	0.036***	0.037***	0.044***	0.044***
	(0.005)	(0.005)	(0.006)	(0.006)
L(CET1r)	-0.956***	-1.555***	-0.940**	0.039
	(0.342)	(0.354)	(0.377)	(0.421)
L(ROE)	0.254***	0.015	-0.021	0.089
	(0.065)	(0.067)	(0.069)	(0.069)
L(LCR)	-0.000	-0.011	0.000	0.001
	(0.006)	(0.007)	(0.006)	(0.007)
L(DepositsAssets)	0.158	0.016	0.085	0.166
	(0.108)	(0.107)	(0.106)	(0.111)
L(SecAssets)	-0.223	-0.182	-0.189	-0.318
	(0.177)	(0.184)	(0.191)	(0.199)
L(NPLr)	0.842	-2.101**	-1.968*	-0.939
	(0.938)	(1.020)	(1.025)	(1.060)
Cntry-Sector-Size-time	Yes	Yes	Yes	Yes
Borrower	Yes	Yes	Yes	Yes
Observations	580102	527771	482396	440431
R^2	0.794	0.793	0.787	0.784
Adj R^2	0.756	0.756	0.748	0.743

Notes: L denotes lagged values. Standard errors, double clustered at the bank and borrower level in parentheses. MP measured in standard deviation of change in OIS3M where 1 standard deviation is worth around 0.4pp.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

7 Conclusion

After several years of stagnation following the global financial crisis, securitisation has re-emerged as an important tool through which banks obtain funding and capital relief. In this paper, we provide new evidence that securitisation amplifies the transmission of monetary policy through the bank lending channel. We combine granular loan-level data from AnaCredit, the euro area credit register, with a nearest-neighbour matching approach that pairs banks with an active securitisation business with observably similar banks that do not securitise, and a rich set of firm-time and firm-bank fixed effects. We find that banks actively engaged in securitisation adjust their credit supply more strongly in response to monetary policy shocks than otherwise comparable banks.

We show that this greater sensitivity reflects the response of investor demand for securitised assets to monetary policy. The ultimate holders of these assets—predominantly non-bank financial institutions—are highly sensitive to policy rates. When monetary policy tightens, the returns required by these investors rise rapidly, causing securitisation activity to contract and reducing securitising banks' capacity to originate new loans. Because securitisation expands lending capacity by freeing up capital and improving balance-sheet liquidity, disruptions to banks' ability to securitise translate into a contraction in credit supply. Consistent with this mechanism, we find that loans more suitable for securitisation—particularly longer-maturity loans and loans to safer firms—contract the most following a monetary policy tightening.

Our findings are robust to alternative empirical specifications, samples, matching procedures, and measures of monetary policy shocks. We also show that the effects extend beyond individual bank–firm relationships. Firms that borrow predominantly from securitising banks are more exposed to monetary tightening and are unable to fully offset the resulting decline in credit by increasing their borrowing from non-securitising banks. Securitisation therefore affects not only the allocation of lending across banks, but also the overall availability of credit to firms.

These findings speak directly to the long-standing debate over whether securitisation dampens or amplifies the transmission of monetary policy. Our results confirm that securitisation relaxes banks' balance-sheet constraints, consistent with the traditional view that it can insulate bank lending from monetary conditions. We show, however, that this insulating effect is more than offset by the interest-rate sensitivity of investor demand for securitised assets. As a result, securitising banks' credit supply becomes more, rather than less, responsive to monetary policy. This distinction is important for understanding the aggregate consequences of a growing securitisation market: the ability to transfer credit risk and release balance-sheet capacity need not make credit supply more resilient to monetary tightening when the demand for that risk is itself highly cyclical.

Our results also have implications for financial stability and macroprudential policy. The fact that securitisation continues to expand in the euro area may amplify, rather than smooth, the credit cycle. The same mechanism that expands banks' lending capacity when investor demand is strong can constrain it when monetary conditions tighten, making bank credit supply more procyclical over the interest-rate cycle. More broadly, our evidence highlights the increasingly important role of non-bank financial institutions in monetary transmission. By acting as the marginal investors in securitised credit risk, their sensitivity to interest rates can shape the response of bank lending to monetary policy, linking conditions in non-bank financial markets directly to the bank lending channel.

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8 Appendix

8.1 Formalisation of the conceptual framework

In this subsection, we provide a simple formalisation of the conditions under which securitising banks may be more sensitive to monetary policy.

Let L be the amount of lending absent securitisation and any monetary policy shock (period 0). Upon the introduction of a securitisation technology, banks manage to securitise $(1+\mu)S$ loans of which they retain μS and sell S. After completion of a Significant Risk Transfer, the risk-weight on remaining loans declines to $RW'(S) < RW$ and the total amount of loans remaining on balance sheet declines down to $L-S$. Risk-weighted loans are worth $RW'(S) \times (L-S)$. Let's assume that the risk-weight on the retained tranches μS declines to 0%, such that we have:

$$RW'(S) = \frac{RW \times (L - S - \mu S) + 0 \times \mu S}{L - S} = RW - RW\frac{\mu S}{L - S} \tag{4}$$

Under the assumption that lending is only determined by bank capital constraints, banks can increase lending back up to $RW \times L$ i.e., increase risk-weighted lending by:

$$RW \times L - RW'(S) \times (L - S) = RW \times (S + \mu S)$$

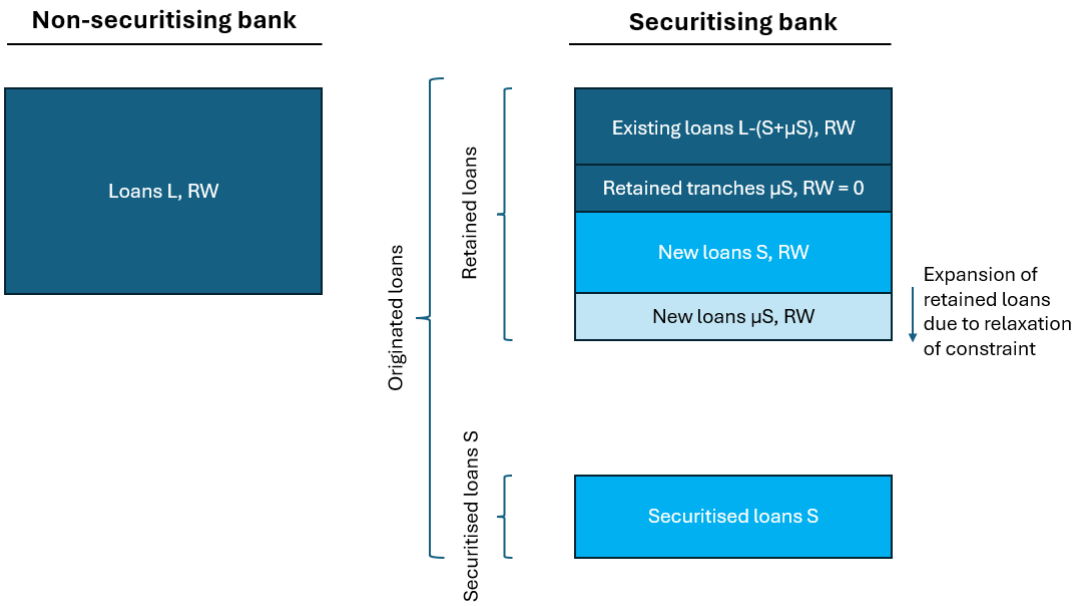
Assuming new-lending is always at RW, this increases unweighted lending by $S + \mu S$. In other terms, banks can increase lending by the amount that has been securitised, plus a term corresponding to reutilisation of the balance sheet space freed up by lower RW. We assume banks only increase lending by a fraction of this ρ. We have:

$$\begin{aligned} RetainedLoans^{SEC}(0) &= L - S + \rho\Big(S + \mu S\Big) \\ SecuritisedLoans^{SEC}(0) &= S \\ OriginatedLoans^{SEC}(0) &= L + \rho\Big(S + \mu S\Big) \end{aligned}$$

While originated loans unambiguously increase if $\rho > 0$, retained loans only increase if ρ is sufficiently large. In other words, it depends how much banks use securitisation to boost lending, or to improve capital positions and increase distributions. Figure 12 illustrates a case where ρ would be sufficiently large for retained loans to increase.

Upon a monetary easing shock (period 1), assume retained lending could grow at a rate of m (say because

Figure 12: Effect of securitisation on bank lending, $\rho = 1$



of a relaxation in capital constraints). In the absence of securitisation, that implies:

$$RetainedLoans^{NOSEC}(1) = OriginatedLoans^{NOSEC}(1) = (1+m)L$$

Suppose securitisation could grow at a rate m^S - because non-banks purchasing the securitised loans now have a larger capacity to purchase them. Then we would have a risk-weight on retained loans RW":

$$RW'' = \frac{RW \times [(1+m)L - (1+m^S)S - \mu(1+m^S)S]}{(1+m)L - (1+m^S)S} \tag{5}$$

If banks increase lending up to their capital constraint, risk-weighted lending could increase by:

$$\begin{aligned} &RW \times (1+m) \times L - RW'' \times ((1+m) \times L - (1+m^S) \times S) \\ &= RW \times (1+m^S) \times (S + \mu S) \end{aligned}$$

Or in non-risk-weighted terms: $(1+m^S) \times (S + \mu S)$. If banks again increase borrowing by a fraction of that,

we have:

$$RetainedLoans^{SEC}(1) = (1+m) \times L - (1+m^S) \times S + \rho\Big[(1+m^S) \times (S+\mu S)\Big]$$
$$SecuritisedLoans^{SEC}(1) = (1+m^S) \times S$$
$$OriginatedLoans^{SEC}(1) = (1+m) \times L + \rho\Big[(1+m^S) \times (S+\mu S)\Big]$$

Clearly, whether retained and originated loans react more in the presence of securitisation depends on two factors: (1) how much banks re-use the freed up balance sheet space, $\rho > 0$ (2) how sensitive access to securitisation is compared to banks' own traditional sources of capital relief/funding, m^S vs m.

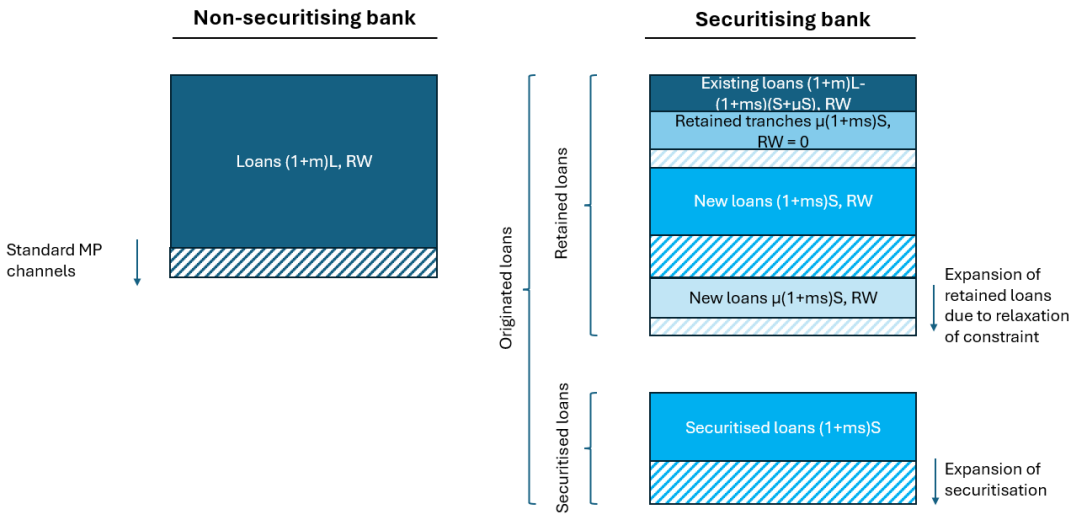
If $\rho = 0$, banks do not use any of the balance sheet space created by securitisation to increase lending (implicity, they use securitisation only to increase payouts or strengthen their balance sheet). In that case, originated lending increases in line with what would have happened absent securitisations, by $(1 + m)$. Retained loans reacts slower than in the absence of securitisations if $m^S > m$, because the expansion of originated lending is offset by an increase of securitisation that reduces retained loans.

If $\rho > 0$, banks increase originated loans upon securitisation. In that case, originated loans react faster for securitising banks only if $m^S > m$. The result for retained loans is ambiguous and depends on both parameters.

Finally in the case where $\rho = 1$, banks increase lending up to their balance sheet constraint when they securitise. In that case, both retained loans and originated loans become more sensitive if $m^S > m$. Figure 13 illustrates this case.

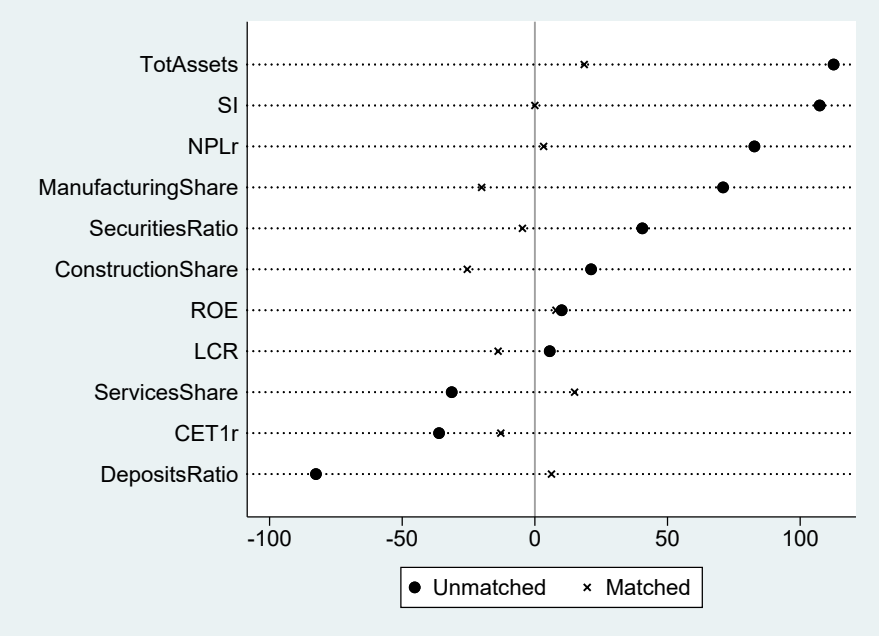
This approach only illustrative. Importantly, the parameter ρ would depend on the shape of the loan demand and supply curves, while m^S and m are both related to the endogenous reaction of aggregate savings to monetary policy. However, they formalise the intuition that underpins our thinking in the paper.

Figure 13: Effect of easing shock depending on whether bank securitises, $\rho = 1$



8.2 Appendix figures

Figure A.1: Balancing of covariates before and after matching

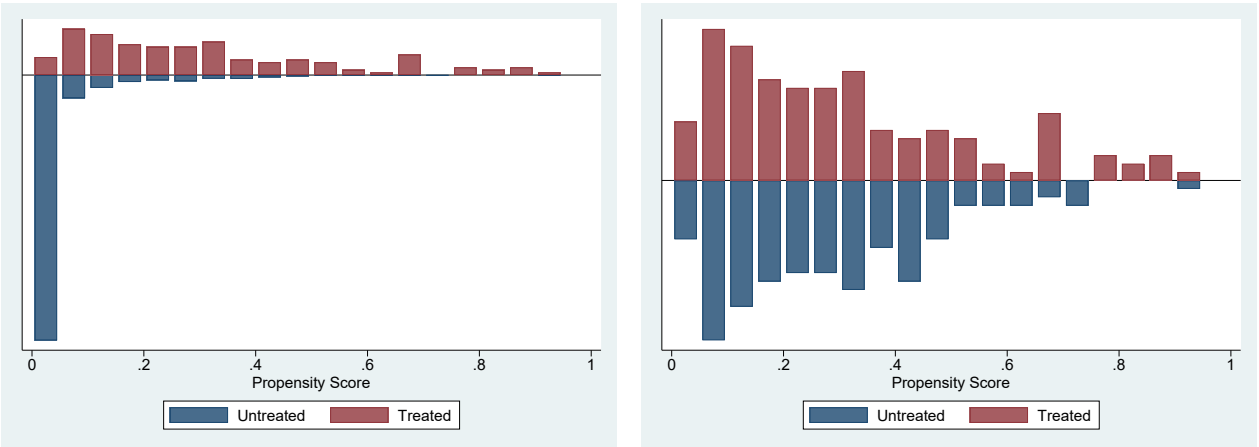


Notes: Standardized differences in means between securitising and non-securitising banks.

Figure A.2: Distribution of the propensity score

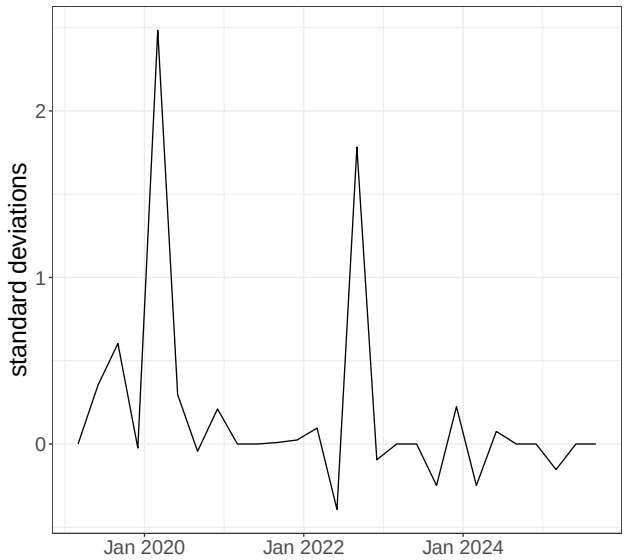
(A) Before matching

(B) After matching



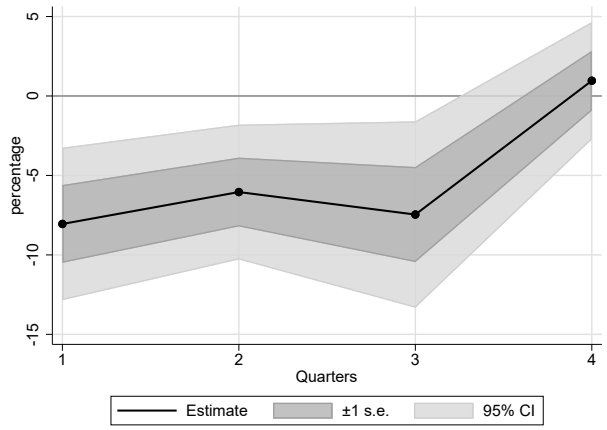
Notes: Chart plots the distribution of the propensity of each bank to be treated or untreated, conditional on its observables, for treated and untreated banks.

Figure A.3: High-frequency monetary policy shocks



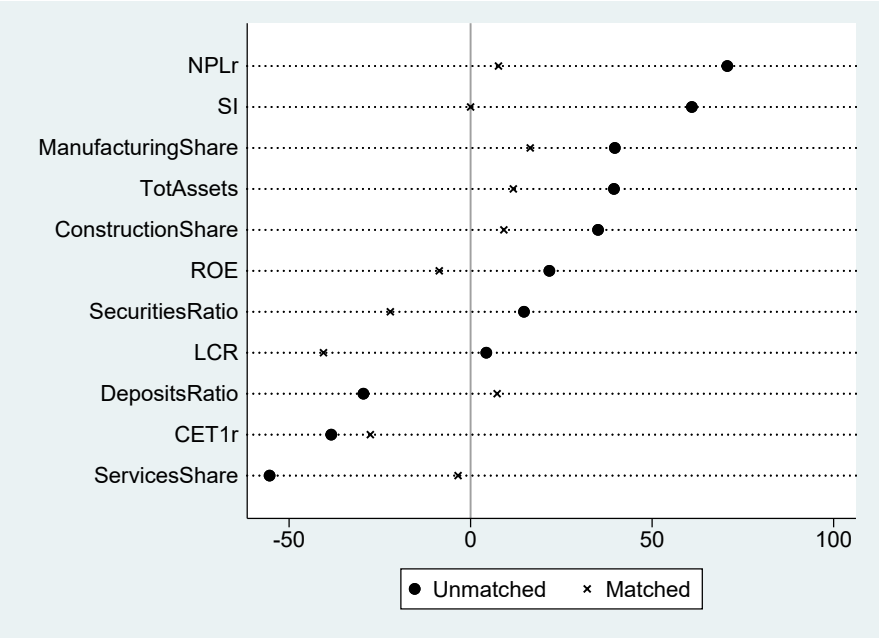
Notes: Time series of quarterly-aggregated high-frequency changes in OIS3M during monatery policy event windows (Altavilla et al., 2019), to which we apply poor man's sign restriction of Jarociński and Karadi (2020).

Figure A.4: Additional sensitivity of securitising banks to high frequency monetary policy shock



Notes: Effect of a 1 standard deviation monetary policy shock. Shocks are high-frequency movements in the OIS3M around monetary policy events as in Altavilla et al. (2019), to which we apply the sign restriction of Jarociński and Karadi (2020). 95% (resp. 1sd) confidence bands in light (resp. dark) grey.

Figure A.5: Balancing of covariates before and after matching - effect of securitisation

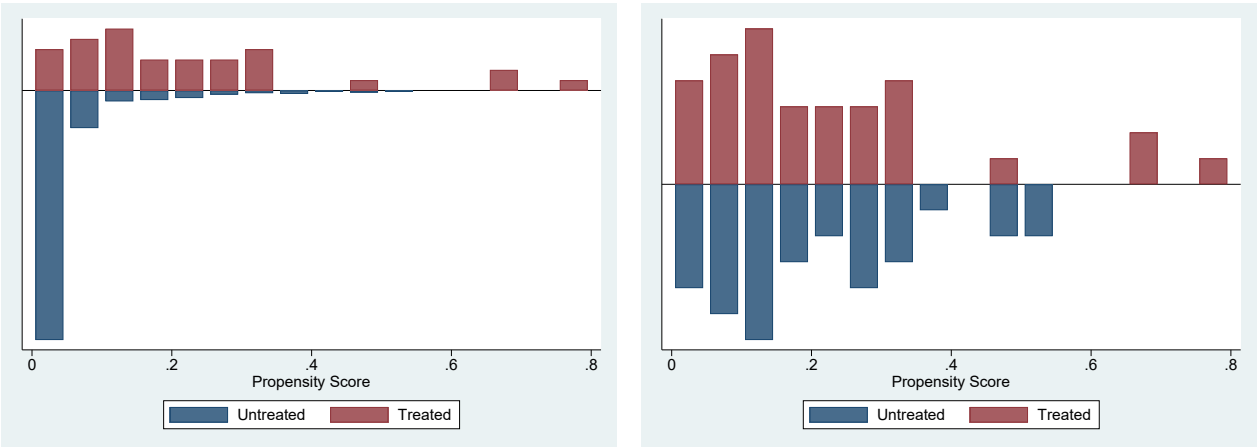


Notes: Standardized differences in means between securitising and non-securitising banks.

Figure A.6: Distribution of the propensity score - effect of securitisation

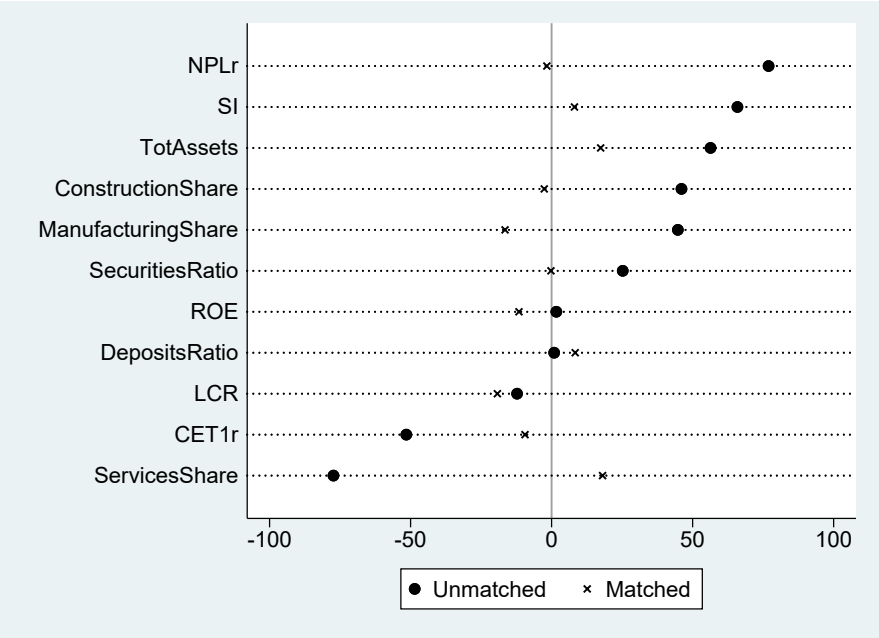
(A) Before matching

(B) After matching



Notes: Chart plots the distribution of the propensity of each bank to be treated or untreated, conditional on its observables, for treated and untreated banks.

Figure A.7: Balancing of covariates before and after matching - effect of SRTs

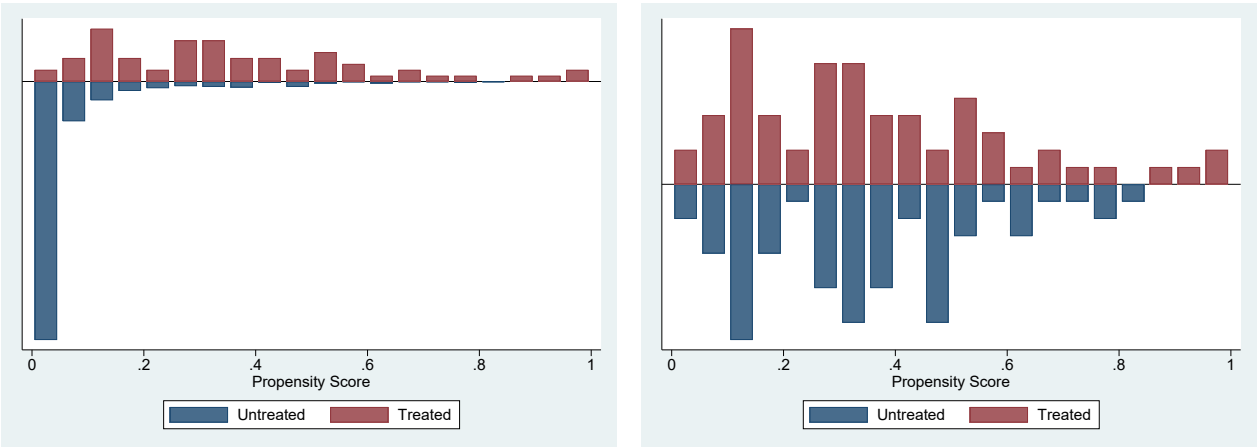


Notes: Standardized differences in means between SRT and non-SRT banks.

Figure A.8: Distribution of the propensity score - effect of SRTs

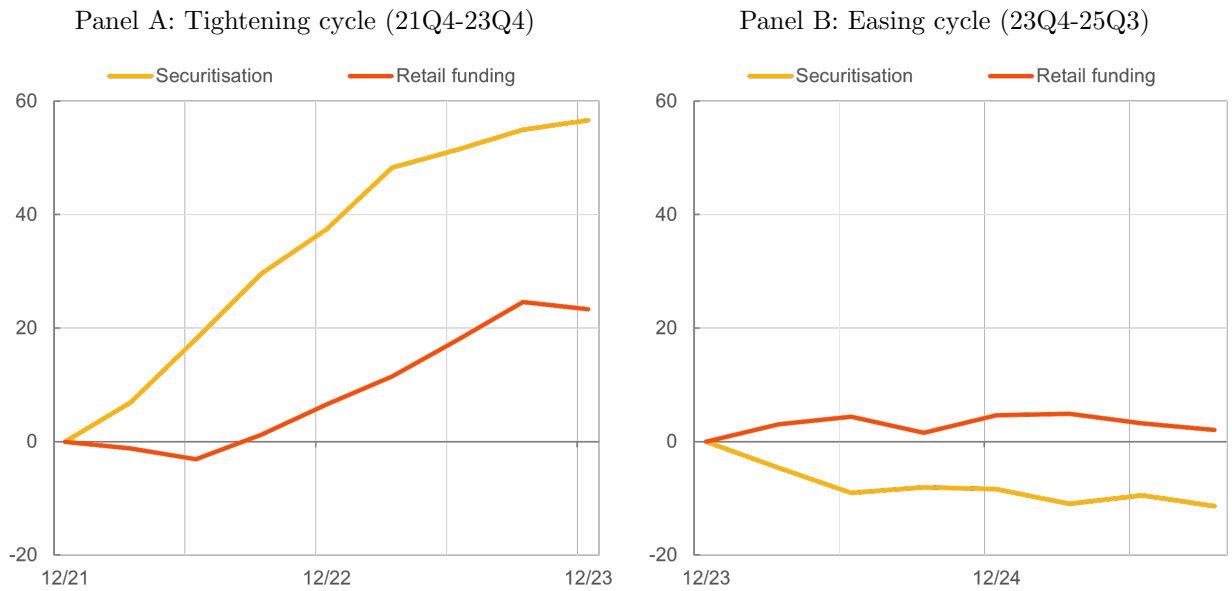
(A) Before matching

(B) After matching



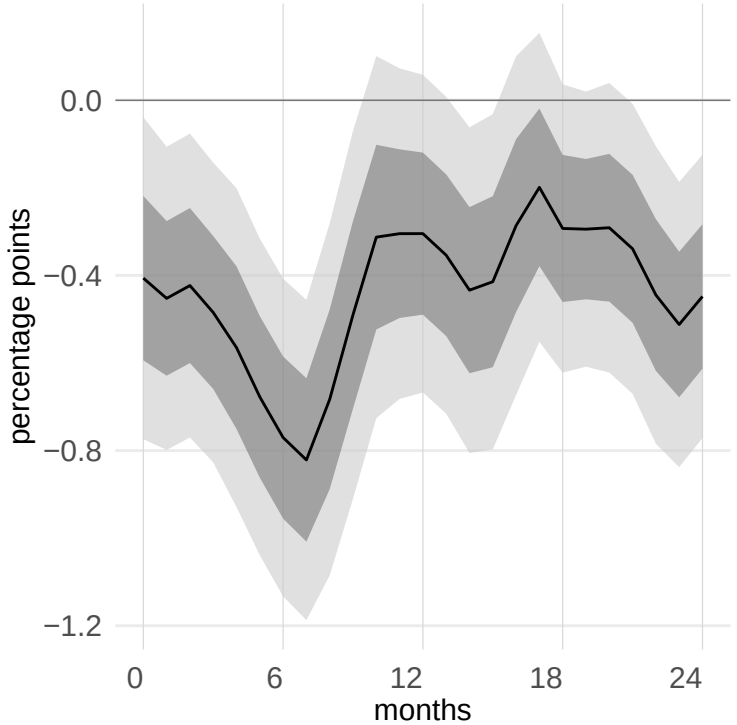
Notes: Chart plots the distribution of the propensity of each bank to be treated or untreated, conditional on its observables, for treated and untreated banks.

Figure A.9: Cumulated net percentage of banks reporting a tightening of funding conditions through different instruments



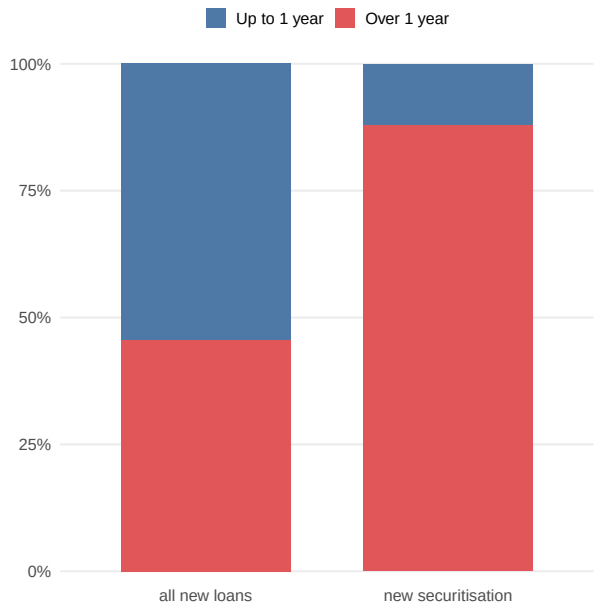
Source: ECB Bank Lending Survey. Latest observation: Q3 2025.

Figure A.10: Impact of monetary policy on securitisation, high frequency shocks



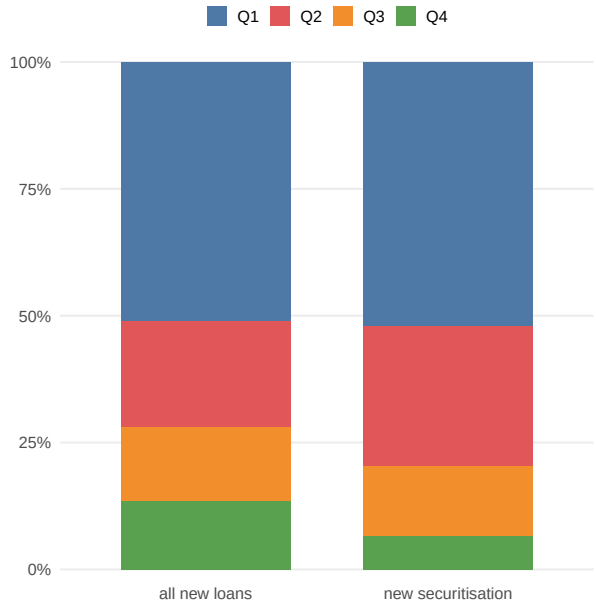
Notes: Chart plots the estimates from Equation 2 with 95% (resp. 1sd) confidence bands in light (resp. dark) grey. Monetary policy is measured using high frequency changes in OIS3M during monetary policy event windows as in Altavilla et al. (2019), to which sign restriction of Jarociński and Karadi (2020) is applied. Effect of a 1 standard deviation shock.

Figure A.11: Share of loans by original maturity



Notes: Chart plots the share of all new loans (left column) and the share of all new securitisations (right column) by original maturity. Source: AnaCredit.

Figure A.12: Share of loans by PD quartile



Notes: Chart plots the share of all new loans (left column) and all new securitisations (right column) by PD quartile. The quartiles are calculated in the matched sample, and are worth: 0.46%, 1.17%, and 3.01%. Source: AnaCredit.

8.3 Appendix tables

Table A.1: Matching diagnostics

Variable	Sample	Treated	Control	%bias	|bias|	t	p>|t|
Bank Size	Unmatched	9.274	7.123	112.6		14.67	0.00
	Matched	9.274	8.919	18.6	83.5	1.33	0.183
CET1 ratio	Unmatched	0.158	0.182	-36.1		-3.510	0.00
	Matched	0.158	0.167	-12.8	64.4	-1.24	0.217
ROE	Unmatched	0.0386	0.032	10.1		1.33	0.185
	Matched	0.0386	0.033	7.9	21.3	0.53	0.599
LC Ratio	Unmatched	2.632	2.512	5.2		0.56	0.578
	Matched	2.632	2.298	-13.9	-147.3	-0.96	0.339
Deposit/Assets	Unmatched	0.519	0.682	-82.5		-9.17	0.00
	Matched	0.519	0.507	6.3	92.4	0.45	0.654
Securities/Assets	Unmatched	0.201	0.151	40.5		4.46	0.00
	Matched	0.201	0.207	-4.7	88.4	-0.34	0.734
NPL ratio	Unmatched	0.0688	0.0288	82.8		11.55	0.00
	Matched	0.0688	0.067	3.3	96.0	0.21	0.833
Share Manuf.	Unmatched	0.180	0.103	71.0		7.77	0.00
	Matched	0.180	0.202	-20.1	71.7	-1.07	0.287
Share Constr	Unmatched	0.102	0.084	21.2		2.08	0.038
	Matched	0.102	0.123	-25.5	-20.2	-1.28 0.203	
Share Services	Unmatched	0.584	0.639	-31.4		-3.11	0.002
	Matched	0.584	0.558	15.0	52.3	1.07	0.283
D Sign. Inst.	Unmatched	0.638	0.173	107.4		13.27	0.000
	Matched	0.638	0.638	0.0	100.0	-0.00	1.000

Table A.2: Effect of policy rate increase on lending

	(1) Lead1	(2) Lead2	(3) Lead3	(4) Lead4
Securitise × L(MP)	-0.065***	-0.054***	-0.033**	0.005
	(0.013)	(0.015)	(0.016)	(0.015)
L(TotAssetsLog)	-0.263**	-0.330***	-0.266**	-0.233*
	(0.118)	(0.103)	(0.106)	(0.121)
L(TotAssetsLog) × L(MP)	-0.001	-0.002	-0.007	-0.013*
	(0.004)	(0.004)	(0.005)	(0.007)
L(CET1r)	0.532	0.230	0.793	1.141***
	(0.493)	(0.518)	(0.533)	(0.421)
L(ROE)	-0.037	-0.029	-0.048	-0.016
	(0.108)	(0.086)	(0.072)	(0.057)
L(LCR)	0.006	0.005	-0.003	-0.003
	(0.007)	(0.006)	(0.006)	(0.007)
L(DepositsAssets)	0.280	-0.120	-0.051	-0.122
	(0.171)	(0.186)	(0.123)	(0.176)
L(SecuritiesAssets)	0.461	0.470	0.860*	0.322
	(0.345)	(0.368)	(0.453)	(0.331)
L(NPLRatio)	-3.417**	-2.901**	-2.172	-0.027
	(1.462)	(1.318)	(1.340)	(1.215)
Borrower-time	Yes	Yes	Yes	Yes
Borrower-bank	Yes	Yes	Yes	Yes
Observations	1133963	1133893	1134839	1134516
R^2	0.826	0.826	0.826	0.826
Adj R^2	0.567	0.567	0.567	0.567

Notes: L denotes lagged values. Standard errors, double clustered at the bank and borrower level in parentheses. MP measured in standard deviation of change in OIS3M where 1 standard deviation is worth around 0.4pp.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.3: Effect of policy rate increase on lending, robustness

	(1) Baseline	(2) Repl	(3) ReplWeighted	(4) GrantLoans	(5) WithRE
Securitise × L(MP)	-0.054***	-0.058***	-0.065***	-0.051***	-0.055***
	(0.015)	(0.019)	(0.021)	(0.014)	(0.015)
Borrower-time	Yes	Yes	Yes	Yes	Yes
Borrower-bank	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes
Observations	1133893	1088994	1088994	1133580	1140334
R^2	0.826	0.825	0.837	0.838	0.828
Adj R^2	0.567	0.567	0.597	0.597	0.573

Notes: The table shows regressions of the log new loans granted on monetary policy shocks (MP) measured in standard deviation of change in OIS3M where 1 standard deviation is worth around 0.4pp. Quarterly data between Q1-2021 and Q4-2025. Securitise is a dummy equal 1 if the bank securitised loans in 2019 and 2020. Loan level data from AnaCredit, bank characteristics from supervisory data. L denotes lagged values. Standard errors, double clustered at the bank and borrower level in parentheses. Column (2) matches securitising banks to non-securitising ones with replacement. Column (3) weights the control banks by the number of times they serve as controls in the matching with replacement approach. Column (4) looks at the sum of on- and off-balance sheet lending. Column (5) includes loans to the real estate sector.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.4: Effect of policy rate increase on lending - sector-country-size time fixed effects

	(1)	(2)	(3)	(4)
	Lead1	Lead2	Lead3	Lead4
Securitise × L(MP)	-0.052**	-0.042**	-0.009	0.013
	(0.020)	(0.019)	(0.011)	(0.013)
L(TotAssetsLog)	-0.238*	-0.255**	-0.167	-0.095
	(0.138)	(0.106)	(0.109)	(0.125)
L(TotAssetsLog) × L(MP)	-0.005	-0.009**	-0.017***	-0.025***
	(0.004)	(0.004)	(0.005)	(0.007)
L(CET1r)	-0.471	-0.932*	-0.363	0.517
	(0.642)	(0.561)	(0.791)	(0.590)
L(ROE)	0.078	0.090	0.081	0.052
	(0.096)	(0.069)	(0.112)	(0.073)
L(LCR)	-0.011	-0.012	-0.013	-0.012
	(0.013)	(0.013)	(0.011)	(0.012)
L(DepositsAssets)	0.137	-0.337	-0.167	-0.316
	(0.197)	(0.223)	(0.247)	(0.252)
L(SecuritiesAssets)	0.102	-0.247	0.407	0.213
	(0.312)	(0.354)	(0.500)	(0.368)
L(NPLRatio)	-0.722	-0.707	-0.144	0.659
	(2.354)	(1.971)	(1.855)	(1.570)
Borrower-bank	Yes	Yes	Yes	Yes
Cntry-sctr-sz-time	Yes	Yes	Yes	Yes
Observations	4689706	4686600	4685860	4682746
R^2	0.651	0.651	0.651	0.651
adj R^2	0.545	0.545	0.545	0.545

Notes: L denotes lagged values. Standard errors, double clustered at the bank and borrower level in parentheses. MP measured in standard deviation of change in OIS3M where 1 standard deviation is worth around 0.4pp.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.5: Effect of policy rate increase on lending, delta log stock

	(1)	(2)	(3)	(4)
	Lead1	Lead2	Lead3	Lead4
Securitise × L(MP)	-0.001	-0.005***	-0.008***	-0.012***
	(0.001)	(0.002)	(0.002)	(0.003)
L(TotAssetsLog)	-0.026**	-0.014	-0.001	0.015
	(0.012)	(0.021)	(0.044)	(0.056)
L(TotAssetsLog) × L(MP)	-0.001**	-0.001	-0.000	-0.001
	(0.000)	(0.001)	(0.001)	(0.002)
L(CET1r)	0.117**	0.471***	0.964***	1.286***
	(0.049)	(0.145)	(0.249)	(0.299)
L(ROE)	-0.003	-0.014	0.045	0.023
	(0.020)	(0.036)	(0.045)	(0.053)
L(LCR)	0.001***	0.000	0.002	0.002
	(0.000)	(0.002)	(0.001)	(0.001)
L(DepositsAssets)	-0.054	-0.146	-0.276	-0.262
	(0.051)	(0.105)	(0.175)	(0.190)
L(SecuritiesAssets)	-0.094	-0.217*	-0.312	-0.496*
	(0.062)	(0.129)	(0.209)	(0.286)
L(NPLr)	0.408***	0.682**	0.852*	1.090
	(0.140)	(0.339)	(0.512)	(0.759)
Borrower-time	Yes	Yes	Yes	Yes
Borrower-bank	Yes	Yes	Yes	Yes
Observations	2824451	2474215	2173646	1915349
R^2	0.454	0.512	0.560	0.604
Adj R^2	-0.043	0.059	0.142	0.219

Notes: L denotes lagged values. Standard errors, double clustered at the bank and borrower level in parentheses. MP measured in standard deviation of change in OIS3M where 1 standard deviation is worth around 0.4pp. Dependent variable is the change in the log stock of loans between t and t+h.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.6: Effect of policy rate increase on lending, identified high-frequency shocks

	(1)	(2)	(3)	(4)
	Lead1	Lead2	Lead3	Lead4
Securitise × L(MP)	-0.081***	-0.060***	-0.075**	0.010
	(0.024)	(0.022)	(0.030)	(0.019)
L(TotAssetsLog)	-0.286**	-0.340***	-0.268**	-0.144
	(0.122)	(0.103)	(0.107)	(0.142)
L(TotAssetsLog) × L(MP)	0.004	0.011*	-0.005	-0.028***
	(0.008)	(0.006)	(0.006)	(0.011)
L(CET1r)	0.337	0.053	0.678	1.342***
	(0.522)	(0.532)	(0.530)	(0.480)
L(ROE)	-0.021	-0.017	-0.046	-0.029
	(0.108)	(0.086)	(0.073)	(0.061)
L(LCR)	0.005	0.004	-0.004	-0.008
	(0.007)	(0.006)	(0.007)	(0.007)
L(DepositsAssets)	0.255	-0.146	-0.083	-0.231
	(0.175)	(0.202)	(0.133)	(0.209)
L(SecuritiesAssets)	0.461	0.514	0.959**	0.485
	(0.305)	(0.353)	(0.476)	(0.330)
L(NPLRatio)	-2.945**	-2.528*	-1.942	-0.119
	(1.432)	(1.303)	(1.336)	(1.241)
Borrower-time	Yes	Yes	Yes	Yes
Borrower-bank	Yes	Yes	Yes	Yes
Observations	1133963	1133893	1134839	1134516
R^2	0.826	0.826	0.826	0.826
Adj R^2	0.567	0.567	0.567	0.567

Notes: L denotes lagged values. Standard errors, double clustered at the bank and borrower level in parentheses. MP measured in standard deviation of change in OIS3M where 1 standard deviation is worth around 0.4pp.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.7: Effect of changes in OIS2Y on lending

	(1) Lead1	(2) Lead2	(3) Lead3	(4) Lead4
Securitise × L(MP)	-0.041***	-0.056***	-0.048***	-0.027
	(0.010)	(0.012)	(0.012)	(0.018)
L(TotAssetsLog)	-0.270**	-0.331***	-0.261**	-0.229*
	(0.118)	(0.101)	(0.106)	(0.124)
L(TotAssetsLog) × L(MP)	0.000	0.006*	-0.001	-0.009
	(0.003)	(0.003)	(0.003)	(0.006)
L(CET1r)	0.389	0.056	0.701	1.222***
	(0.522)	(0.514)	(0.523)	(0.445)
L(ROE)	-0.023	-0.016	-0.044	-0.017
	(0.108)	(0.087)	(0.073)	(0.058)
L(LCR)	0.006	0.005	-0.003	-0.004
	(0.007)	(0.006)	(0.007)	(0.007)
L(DepositsAssets)	0.262	-0.155	-0.082	-0.139
	(0.172)	(0.205)	(0.131)	(0.182)
L(SecuritiesAssets)	0.439	0.548	0.956**	0.378
	(0.319)	(0.362)	(0.473)	(0.317)
L(NPLRatio)	-3.092**	-2.729**	-2.112	-0.158
	(1.441)	(1.309)	(1.342)	(1.217)
Borrower-time	Yes	Yes	Yes	Yes
Borrower-bank	Yes	Yes	Yes	Yes
Observations	1133963	1133893	1134839	1134516
R^2	0.826	0.826	0.826	0.826
Adj R^2	0.567	0.567	0.567	0.567

Notes: L denotes lagged values. Standard errors, double clustered at the bank and borrower level in parentheses. MP measured in standard deviation of change in OIS3M where 1 standard deviation is worth around 0.4pp.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.8: Effect of policy rate increase on lending - one more lag

	(1) Lead1	(2) Lead2	(3) Lead3	(4) Lead4
Securitise × L(MP)	-0.058***	-0.068***	-0.068***	-0.007
	(0.015)	(0.015)	(0.020)	(0.027)
L(TotAssetsLog)	0.017	-0.228	-0.126	-0.164
	(0.116)	(0.169)	(0.215)	(0.147)
L(TotAssetsLog) × L(MP)	0.003	0.008**	0.001	-0.024*
	(0.005)	(0.004)	(0.004)	(0.013)
Securitise × L2(MP)	-0.009	0.019	0.052***	0.018
	(0.019)	(0.018)	(0.017)	(0.021)
L2(TotAssetsLog)	-0.347***	-0.101	-0.153	-0.070
	(0.035)	(0.168)	(0.252)	(0.152)
L2(TotAssetsLog) × L2(MP)	-0.006	-0.014**	-0.012*	0.016
	(0.006)	(0.006)	(0.007)	(0.011)
L(CET1r)	0.589	0.260	0.781	1.261***
	(0.495)	(0.529)	(0.513)	(0.449)
L(ROE)	-0.037	-0.044	-0.060	-0.018
	(0.102)	(0.083)	(0.075)	(0.054)
L(LCR)	0.009	0.006	-0.001	-0.005
	(0.007)	(0.006)	(0.006)	(0.007)
L(DepositsAssets)	0.357**	-0.099	-0.032	-0.136
	(0.165)	(0.190)	(0.125)	(0.186)
L(SecuritiesAssets)	0.441	0.444	0.824*	0.322
	(0.348)	(0.382)	(0.435)	(0.319)
L(NPLRatio)	-3.113**	-2.764**	-2.089	-0.105
	(1.454)	(1.329)	(1.353)	(1.222)
Borrower-time	Yes	Yes	Yes	Yes
Borrower-bank	Yes	Yes	Yes	Yes
Observations	1133850	1133825	1134802	1134428
R^2	0.826	0.826	0.826	0.826
Adj R^2	0.567	0.567	0.567	0.567

Notes: L denots lagged values. Standard errors, double clustered at the bank and borrower level in parentheses. MP measured in standard deviation of change in OIS3M where 1 standard deviation is worth around 0.4pp.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.9: Effect of policy rate increase on lending - additional lags

	(1)	(2)	(3)	(4)
	Lag1	Lag2	Lag3	Lag4
Securitise × L(MP)	-0.065***	-0.059***	-0.058***	-0.052***
	(0.013)	(0.015)	(0.015)	(0.014)
L(TotAssetsLog) × L(MP)	-0.001	0.003	0.001	-0.001
	(0.004)	(0.005)	(0.004)	(0.004)
L(TotAssetsLog)	-0.263**	-0.253**	-0.240**	-0.240**
	(0.118)	(0.119)	(0.120)	(0.117)
Securitise × L2(MP)		-0.009	-0.018	-0.015
		(0.019)	(0.016)	(0.016)
L(TotAssetsLog) × L2(MP)		-0.005	0.006	0.005
		(0.006)	(0.004)	(0.004)
Securitise × L3(MP)			0.011	-0.023
			(0.017)	(0.017)
L(TotAssetsLog) × L3(MP)			-0.013**	-0.002
			(0.006)	(0.004)
Securitise × L4(MP)				0.043***
				(0.016)
L(TotAssetsLog) × L4(MP)				-0.015*
				(0.009)
L(CET1r)	0.532	0.567	0.611	0.643
	(0.493)	(0.506)	(0.513)	(0.529)
L(ROE)	-0.037	-0.042	-0.042	-0.042
	(0.108)	(0.106)	(0.107)	(0.107)
L(LCR)	0.006	0.006	0.007	0.008
	(0.007)	(0.007)	(0.007)	(0.007)
L(DepositsAssets)	0.280	0.289*	0.264	0.235
	(0.171)	(0.169)	(0.177)	(0.192)
L(SecuritiesAssets)	0.461	0.456	0.436	0.449
	(0.345)	(0.353)	(0.363)	(0.365)
L(NPLRatio)	-3.417**	-3.385**	-3.498**	-3.608**
	(1.462)	(1.463)	(1.481)	(1.519)
Borrower-time	Yes	Yes	Yes	Yes
Borrower-bank	Yes	Yes	Yes	Yes
Observations	1133963	1133963	1133963	1133963
R^2	0.826	0.826	0.826	0.826
Adj R^2	0.567	0.567	0.567	0.567

Notes: L denotes lagged values. Standard errors, double clustered at the bank and borrower level in parentheses. MP measured in standard deviation of change in OIS3M where 1 standard deviation is worth around 0.4pp.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.10: Effect of policy rate increase on lending, interactions with macroeconomic variables

	(1)	(2)	(3)	(4)
	Lead1	Lead2	Lead3	Lead4
Securitise × L(MP)	-0.066***	-0.054***	-0.036**	0.003
	(0.013)	(0.014)	(0.015)	(0.015)
Securitise × L(HICPg)	0.125	-0.439**	-0.426*	0.354**
	(0.192)	(0.196)	(0.222)	(0.160)
Securitise × L(GDPg)	-1.515	-1.403	-3.934***	-2.025***
	(1.053)	(0.886)	(1.168)	(0.779)
L(TotAssetsLog)	-0.253**	-0.319***	-0.258**	-0.227*
	(0.118)	(0.100)	(0.103)	(0.120)
L(TotAssetsLog) × L(MP)	-0.001	-0.002	-0.008	-0.013*
	(0.004)	(0.004)	(0.005)	(0.007)
L(HICPg)	-2.789***	1.711*	-1.491*	1.272
	(0.964)	(0.937)	(0.858)	(0.820)
L(GDPg)	2.013	-0.446	3.765*	-0.381
	(2.076)	(2.187)	(2.215)	(2.210)
L(CET1r)	0.538	0.266	0.784	1.145***
	(0.490)	(0.509)	(0.530)	(0.420)
L(ROE)	-0.038	-0.034	-0.046	-0.019
	(0.108)	(0.087)	(0.074)	(0.057)
L(LCR)	0.006	0.005	-0.001	-0.002
	(0.007)	(0.006)	(0.006)	(0.007)
L(DepositsAssets)	0.285*	-0.105	-0.040	-0.126
	(0.171)	(0.186)	(0.122)	(0.178)
L(SecuritiesAssets)	0.442	0.458	0.851*	0.322
	(0.347)	(0.366)	(0.447)	(0.332)
L(NPLRatio)	-3.428**	-2.951**	-2.261*	-0.029
	(1.462)	(1.324)	(1.336)	(1.216)
Borrower-time	Yes	Yes	Yes	Yes
Borrower-bank	Yes	Yes	Yes	Yes
Observations	1133963	1133893	1134839	1134516
R^2	0.826	0.826	0.826	0.826
Adj R^2	0.567	0.567	0.567	0.567

Notes: L denotes lagged values. Standard errors, double clustered at the bank and borrower level in parentheses. L(HICPg) is the lagged quarterly growth in HICP of the borrower residence country, and L(GDPg) is the lagged quarterly growth in the real GDP of the borrower residence country. MP measured in standard deviation of change in OIS3M where 1 standard deviation is worth around 0.4pp.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.11: Effect of policy rate increase on lending, securitisation ratio

	(1)	(2)	(3)	(4)
	Lead1	Lead2	Lead3	Lead4
ShareSec × L(MP)	-0.020	-0.089	-0.244**	-0.231
	(0.097)	(0.109)	(0.121)	(0.142)
L(TotAssetsLog)	-0.267**	-0.332***	-0.271***	-0.248**
	(0.117)	(0.102)	(0.102)	(0.114)
L(TotAssetsLog) × L(MP)	-0.006*	-0.006*	-0.007*	-0.009
	(0.003)	(0.003)	(0.004)	(0.006)
L(CET1r)	0.507	0.239	0.804	1.070***
	(0.525)	(0.538)	(0.539)	(0.409)
L(ROE)	-0.026	-0.023	-0.047	-0.015
	(0.108)	(0.087)	(0.074)	(0.057)
L(LCR)	0.005	0.004	-0.004	-0.004
	(0.007)	(0.006)	(0.006)	(0.007)
L(DepositsAssets)	0.285	-0.120	-0.062	-0.136
	(0.177)	(0.190)	(0.126)	(0.179)
L(SecuritiesAssets)	0.322	0.371	0.819*	0.351
	(0.341)	(0.374)	(0.464)	(0.352)
L(NPLRatio)	-2.938**	-2.562*	-1.896	0.056
	(1.437)	(1.318)	(1.332)	(1.210)
Borrower-time	Yes	Yes	Yes	Yes
Borrower-bank	Yes	Yes	Yes	Yes
Observations	1133963	1133893	1134839	1134516
R^2	0.826	0.826	0.826	0.826
Adj R^2	0.567	0.567	0.567	0.567

Notes: L denotes lagged values. Standard errors, double clustered at the bank and borrower level in parentheses. MP measured in standard deviation of change in OIS3M where 1 standard deviation is worth around 0.4pp.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.12: Descriptive statistics - diff-in-diff - securitisation

Variable	N obs.	N banks	Min	Q25	Q50	Mean	Q75	Max	SD
CET1 ratio (%)	1313	64	10.4	14.0	16.5	17.7	19.7	57.6	5.9
LCR (%)	1155	64	101.5	174.8	232.2	350.2	360.9	1703.0	320.2
Log total assets (log mn)	1235	64	3.8	7.3	8.5	8.7	10.3	12.7	1.9
ROE (%)	1235	64	-13.1	2.8	6.0	6.3	10.9	18.5	7.3
NPL ratio (%)	1232	64	0.1	1.4	2.9	5.3	6.7	20.1	5.9
Payout ratio (%)	540	39	0.0	0.8	2.1	4.0	5.0	16.8	4.7
Deposit ratio (%)	1233	64	0.2	71.3	82.6	75.3	87.8	95.7	20.1
Debt securities ratio (%)	1208	64	0.0	10.2	17.4	20.7	28.2	79.6	14.9
Share industry (%)	963	64	0.0	11.1	20.0	21.6	31.7	77.4	14.8
Share services (%)	963	64	0.0	50.8	64.3	64.2	76.5	100.0	18.5
Share construction (%)	963	64	0.0	2.8	8.0	9.8	14.2	100.0	9.4
Is SI	1313	64	0.0	0.0	0.0	0.3	1.0	1.0	0.5
Originated loan growth (%)	1145	64	-19.9	-1.0	4.0	6.9	9.6	69.5	16.3
Retained loan growth (%)	1145	64	-19.7	-1.3	3.8	6.5	9.2	68.3	16.0

Notes: This table reports summary statistics for the main bank-level variables within the matched sample of banks. The matched sample of banks contains treated banks (those that report a securitisation for the first time post-2021) and control banks (those that never report any securitisation). The sample consists of bank-quarter observations. The payout ratio is the sum of share buybacks and dividends, over lagged total equity. Originated loans are equal to on-balance sheet loans plus traditional securitisations. Retained loans are equal to on-balance sheet loans minus synthetic securitisations. All variables are winsorized at 2.5% on each side.

Table A.13: Descriptive statistics - diff-in-diff - SRT

Variable	N obs.	N banks	Min	Q25	Q50	Mean	Q75	Max	SD
CET1 ratio (%)	2528	124	10.4	13.4	15.7	16.9	19.1	52.0	5.2
LCR (%)	2205	124	101.5	167.6	231.2	343.0	371.5	1703.0	312.8
Log total assets (log mn)	2337	124	4.3	7.7	8.9	9.1	10.8	13.9	2.0
ROE (%)	2335	124	-13.1	2.8	6.0	5.9	10.2	18.5	7.4
NPL ratio (%)	2337	124	0.1	2.0	3.6	6.1	8.1	20.1	6.0
Payout ratio (%)	1070	74	0.0	0.6	1.6	3.3	4.7	16.8	4.1
Deposit ratio (%)	2334	124	0.0	74.9	83.3	78.2	88.1	97.2	16.1
Debt securities ratio (%)	2334	124	0.2	12.4	20.9	23.2	30.5	89.0	14.3
Share industry (%)	1852	124	0.0	14.1	22.8	23.1	31.0	77.4	12.3
Share services (%)	1852	124	10.0	49.3	60.6	60.0	69.3	100.0	15.7
Share construction (%)	1852	124	0.0	5.6	9.8	11.1	15.2	51.7	7.5
Is SI	2530	124	0.0	0.0	0.0	0.3	1.0	1.0	0.5
Originated loan growth (%)	2154	124	-19.9	-1.2	3.8	5.1	8.5	69.5	13.6
Retained loan growth (%)	2154	124	-19.7	-1.4	3.6	4.7	8.0	68.3	13.0

Notes: This table reports summary statistics for the main bank-level variables within the matched sample of banks. The matched sample of banks contains treated banks (those that report an SRT for the first time post-2021) and control banks (those that never report any SRT). The sample consists of bank-semester observations. The payout ratio is the sum of share buybacks and dividends, over lagged total equity. Originated loans are equal to on-balance sheet loans plus traditional securitisations. Retained loans are equal to on-balance sheet loans minus synthetic securitisations. All variables are winsorized at 2.5% on each side.

Table A.14: Matching diagnostics - DiD analysis securitisation

Variable	Sample	Treated	Control	%bias	|bias|	t	p>|t|
Bank Size	Unmatched	8.6697	7.9591	39.5		2.37	0.018
	Matched	8.6697	8.458	11.8	70.2	0.41	0.683
CET1 ratio	Unmatched	0.17543	0.20238	-38.4		-1.67	0.095
	Matched	0.17543	0.19482	-27.6	28.1	-1.36	0.178
ROE	Unmatched	3.5556	2.3556	21.7		1.24	0.217
	Matched	3.5556	4.0333	-8.6	60.2	-0.28	0.780
LC Ratio	Unmatched	3.7947	3.6378	4.3		0.23	0.817
	Matched	3.7947	5.2663	-40.5	-838.2	-1.38	0.173
Deposit/Assets	Unmatched	.76395	.81545	-29.5		-1.72	0.086
	Matched	.76395	.75121	7.3	75.3	0.24	0.811
Securities/Assets	Unmatched	.21469	.19358	14.7		0.78	0.438
	Matched	.21469	.24642	-22.1	-50.4	-0.79	0.435
NPL ratio	Unmatched	.06126	.02716	70.7		4.74	0.000
	Matched	.06126	.05756	7.7	89.1	0.25	0.807
Share Manuf.	Unmatched	.23319	.17725	39.7		2.06	0.040
	Matched	.23319	.21007	16.4	58.7	0.56	0.577
Share Constr	Unmatched	.10288	.07602	35.1		1.93	0.054
	Matched	.10288	.09587	9.2	73.9	0.34	0.733
Share Services	Unmatched	.62339	.72089	-55.4		-3.01	0.003
	Matched	.62339	.62947	-3.5	93.8	-0.13	0.900
D Sign. Inst.	Unmatched	.3125	.07867	60.9		4.48	0.000
	Matched	0.3125	0.3125	0.0	100.0	0.00	1.000

Table A.15: Matching diagnostics - DiD analysis SRT

Variable	Sample	Treated	Control	%bias	|bias|	t	p>|t|
Bank Size	Unmatched	9.1335	8.0589	56.4		4.69	0.000
	Matched	9.1335	8.8019	17.4	69.1	0.90	0.369
CET1 ratio	Unmatched	.16509	.19939	-51.5		-3.07	0.002
	Matched	.16509	.17137	-9.4	81.7	-0.82	0.416
ROE	Unmatched	2.5418	2.4444	1.7		0.13	0.894
	Matched	2.5418	3.2106	-11.6	-586.2	-0.54	0.589
LC Ratio	Unmatched	3.3286	3.7339	-12.3		-0.82	0.412
	Matched	3.3286	3.9646	-19.2	-56.9	-1.12	0.266
Deposit/Assets	Unmatched	.81076	.80946	0.9		0.06	0.952
	Matched	.81076	.79878	8.4	-818.2	0.53	0.600
Securities/Assets	Unmatched	0.22575	0.19169	25.2		1.76	0.080
	Matched	0.22575	0.22605	-0.2	99.1	-0.01	0.991
NPL ratio	Unmatched	0.06552	0.02856	76.9		6.72	0.000
	Matched	0.06552	0.06633	-1.7	97.8	-0.07	0.942
Share Manuf.	Unmatched	0.23839	0.18116	44.8		2.93	0.003
	Matched	0.23839	0.2595	-16.5	63.1	-0.89	0.374
Share Constr	Unmatched	0.1151	0.07804	46.1		3.61	0.000
	Matched	0.1151	0.1172	-2.6	94.3	-0.14	0.888
Share Services	Unmatched 0.59026	0.71393	-77.4		-5.22	0.000	
	Matched	0.59026	0.56136	18.1	76.6	1.05	0.298
D Sign. Inst.	Unmatched	0.35484	0.09259	65.9		6.21	0.000
	Matched	0.35484	0.32258	8.1	87.7	0.38	0.707

Table A.16: Effect of policy rate increase on lending, by securitisation type

	(1) Ref	(2) Trad	(3) Synth	(4) Both
ShareSec × L(MP)	-0.144			-0.404**
	(0.094)			(0.156)
ShareTrad × L(MP)		0.085		0.414***
		(0.064)		(0.147)
ShareSynth × L(MP)			-0.407***	
			(0.151)	
L(TotAssetsLog)	-0.271**	-0.243**	-0.282**	-0.281**
	(0.111)	(0.107)	(0.110)	(0.110)
L(TotAssetsLog) × L(MP)	-0.010***	-0.011***	-0.006*	-0.006*
	(0.004)	(0.004)	(0.003)	(0.003)
L(CET1r)	-0.892	-1.021*	-1.048*	-1.055*
	(0.568)	(0.567)	(0.558)	(0.564)
L(ROE)	0.094	0.094	0.107	0.107
	(0.070)	(0.069)	(0.070)	(0.070)
L(LCR)	-0.013	-0.012	-0.012	-0.012
	(0.013)	(0.013)	(0.013)	(0.013)
L(DepositsAssets)	-0.342	-0.314	-0.298	-0.296
	(0.223)	(0.220)	(0.207)	(0.206)
L(SecuritiesAssets)	-0.260	-0.294	-0.474	-0.477
	(0.356)	(0.363)	(0.359)	(0.365)
L(NPLRatio)	-0.579	-0.575	-0.750	-0.751
	(2.018)	(1.996)	(1.994)	(1.993)
Borrower-bank	Yes	Yes	Yes	Yes
Sctr-cntry-sz-time	Yes	Yes	Yes	Yes
Observations	4686600	4686600	4686600	4686600
R^2	0.651	0.651	0.651	0.651
Adj R^2	0.545	0.545	0.545	0.545

Notes: L denotes lagged values. Standard errors, double clustered at the bank and borrower level in parentheses. ShareSec (resp. ShareTrad and ShareSynth) is the average share of the stock of securitised loans to firms to the stock of total loans to firms between Q1 2019-Q1 2021 (resp. the share of traditionally securitised loans, and the share of synthetically securitised loans). The dependent variable corresponds to the two quarters ahead log of new loans. MP measured in standard deviation of change in OIS3M where 1 standard deviation is worth around 0.4pp.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.17: Effect of policy rate increase on lending - over 1 year original maturity

	(1)	(2)	(3)	(4)
	Lead1	Lead2	Lead3	Lead4
Securitise × L(MP)	-0.100**	-0.088***	-0.071***	0.003
	(0.039)	(0.029)	(0.027)	(0.020)
L(TotAssetsLog)	0.216*	0.225	0.161	0.046
	(0.118)	(0.140)	(0.111)	(0.126)
L(TotAssetsLog) × L(MP)	0.008	0.007	0.003	0.002
	(0.005)	(0.005)	(0.005)	(0.005)
L(CET1r)	-0.467	0.238	0.721	1.404*
	(0.638)	(0.611)	(0.676)	(0.727)
L(ROE)	0.039	0.105	0.086	-0.101
	(0.101)	(0.098)	(0.087)	(0.074)
L(LCR)	-0.000	-0.005	0.006	-0.014
	(0.015)	(0.014)	(0.015)	(0.015)
L(DepositsAssets)	-0.188	-0.100	0.211	0.275
	(0.205)	(0.188)	(0.249)	(0.236)
L(SecuritiesAssets)	-0.103	-0.320	-0.216	0.000
	(0.467)	(0.534)	(0.384)	(0.327)
L(NPLRatio)	-0.182	1.726	1.135	2.109
	(2.339)	(2.580)	(1.991)	(1.805)
Borrower-time	Yes	Yes	Yes	Yes
Borrower-bank	Yes	Yes	Yes	Yes
Observations	69392	69219	69625	69492
R^2	0.920	0.920	0.920	0.920
Adj R^2	0.592	0.593	0.593	0.593

Notes: L denotes lagged values. Standard errors, double clustered at the bank and borrower level in parentheses. MP measured in standard deviation of change in OIS3M where 1 standard deviation is worth around 0.4pp.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.18: Effect of policy rate increase on lending - up to 1 year original maturity

	(1)	(2)	(3)	(4)
	Lead1	Lead2	Lead3	Lead4
Securitise × L(MP)	-0.031***	-0.025***	-0.016**	-0.004
	(0.007)	(0.008)	(0.008)	(0.008)
L(TotAssetsLog)	0.059	-0.022	-0.082	-0.206
	(0.282)	(0.250)	(0.199)	(0.166)
L(TotAssetsLog) × L(MP)	0.003	0.002	0.000	0.002
	(0.003)	(0.002)	(0.002)	(0.002)
L(CET1r)	0.622	0.758	1.207	1.092*
	(0.522)	(0.664)	(0.740)	(0.568)
L(ROE)	-0.040	-0.184**	-0.061	0.070*
	(0.139)	(0.074)	(0.040)	(0.040)
L(LCR)	0.028***	0.024***	0.020***	0.026***
	(0.006)	(0.006)	(0.007)	(0.007)
L(DepositsAssets)	-0.085	-0.311**	-0.398***	-0.251*
	(0.172)	(0.143)	(0.138)	(0.150)
L(SecuritiesAssets)	0.577	0.313	0.107	-0.318
	(0.381)	(0.412)	(0.369)	(0.278)
L(NPLRatio)	-5.106***	-5.021***	-4.320***	-2.880**
	(1.579)	(1.609)	(1.445)	(1.135)
Borrower-time	Yes	Yes	Yes	Yes
Borrower-bank	Yes	Yes	Yes	Yes
Observations	640589	640935	641349	641299
R^2	0.914	0.914	0.914	0.914
Adj R^2	0.805	0.805	0.805	0.805

Notes: L denotes lagged values. Standard errors, double clustered at the bank and borrower level in parentheses. MP measured in standard deviation of change in OIS3M where 1 standard deviation is worth around 0.4pp.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.19: Effect of policy rate increase on lending, PD top quartile

	(1) Lead1	(2) Lead2	(3) Lead3	(4) Lead4
Securitise × L(MP)	-0.084*	-0.068*	0.003	0.032*
	(0.043)	(0.038)	(0.022)	(0.018)
Q4	-0.041	-0.046	-0.053	-0.057
	(0.042)	(0.043)	(0.046)	(0.050)
Securitise × Q4	-0.062	-0.058	-0.057	-0.052
	(0.047)	(0.048)	(0.050)	(0.054)
Q4 × L(MP)	-0.002	0.010	0.024***	0.031**
	(0.010)	(0.008)	(0.007)	(0.014)
Securitise × Q4 × L(MP)	0.049***	0.038***	0.023**	0.015
	(0.013)	(0.010)	(0.010)	(0.016)
L(TotAssetsLog)	-0.487	-0.270	-0.117	0.363
	(0.466)	(0.399)	(0.499)	(0.440)
L(TotAssetsLog) × L(MP)	-0.021	-0.033	-0.060	-0.080
	(0.024)	(0.032)	(0.040)	(0.053)
L(CET1r)	0.365	0.011	2.911	3.347*
	(1.033)	(0.856)	(2.130)	(1.929)
L(ROE)	-0.049	0.109	-0.061	-0.139
	(0.211)	(0.102)	(0.173)	(0.114)
L(LCR)	0.016	-0.004	-0.060	-0.028
	(0.037)	(0.040)	(0.043)	(0.043)
L(DepositsAssets)	2.009***	0.128	0.595	-0.845
	(0.710)	(0.605)	(0.612)	(0.830)
L(SecuritiesAssets)	0.105	0.051	3.429**	2.207*
	(0.914)	(1.024)	(1.330)	(1.188)
L(NPLr)	-0.726	0.157	1.093	2.874
	(6.014)	(3.626)	(2.782)	(2.509)
Sctr-cntry-sz-time	Yes	Yes	Yes	Yes
Borrower-bank	Yes	Yes	Yes	Yes
Observations	2343792	2343825	2343818	2343912
R^2	0.666	0.666	0.666	0.666
Adj R^2	0.548	0.547	0.548	0.548

Notes: L denotes lagged values. Standard errors, double clustered at the bank and borrower level in parentheses. The top quartile calculated in the matched sample after taking the average PD by borrower, and is worth 3.01%. MP measured in standard deviation of change in OIS3M where 1 standard deviation is worth around 0.4pp. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.20: Effect of policy rate increase on lending - firm level analysis, dummy exposures

	(1) Lead1	(2) Lead2	(3) Lead3	(4) Lead4
L(Securitise)=1	-0.089*	-0.068	0.071	0.069
	(0.054)	(0.056)	(0.057)	(0.065)
L(Securitise)=1 × L(MP)	-0.086***	-0.092***	-0.069***	-0.030
	(0.024)	(0.025)	(0.025)	(0.028)
L(Rel with Non-Sec bank)=1	-0.017	-0.017	-0.012	-0.014
	(0.012)	(0.013)	(0.014)	(0.015)
L(Rel with Non-Sec bank)=1 × L(MP)	0.010*	0.009	0.009	0.003
	(0.005)	(0.005)	(0.006)	(0.006)
PD	-0.762***	-0.994***	-1.084***	-1.315***
	(0.058)	(0.066)	(0.079)	(0.093)
SalesLog	0.036***	0.037***	0.044***	0.044***
	(0.005)	(0.005)	(0.006)	(0.006)
L(CET1r)	-0.910***	-1.556***	-0.985***	0.023
	(0.343)	(0.354)	(0.377)	(0.421)
L(ROE)	0.251***	0.019	-0.011	0.092
	(0.064)	(0.067)	(0.069)	(0.069)
L(LCR)	0.000	-0.011	-0.000	0.001
	(0.006)	(0.007)	(0.006)	(0.007)
L(DepositsAssets)	0.149	0.002	0.078	0.164
	(0.108)	(0.107)	(0.106)	(0.111)
L(SecAssets)	-0.214	-0.154	-0.162	-0.307
	(0.177)	(0.184)	(0.191)	(0.199)
L(NPLr)	1.115	-1.980*	-2.158**	-1.058
	(0.930)	(1.013)	(1.019)	(1.048)
Cntry-Sector-Size-time	Yes	Yes	Yes	Yes
Borrower	Yes	Yes	Yes	Yes
Observations	580102	527771	482396	440431
R^2	0.794	0.793	0.787	0.784
Adj R^2	0.756	0.756	0.748	0.743

Notes: L denotes lagged values. Standard errors, double clustered at the bank and borrower level in parentheses. MP measured in standard deviation of change in OIS3M where 1 standard deviation is worth around 0.4pp.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

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